



CHILD HEALTH

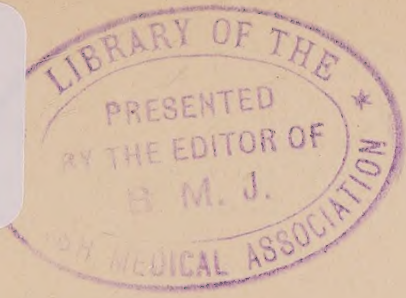
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CHILD HEALTH



By

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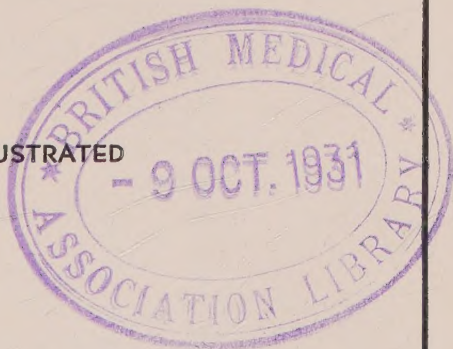
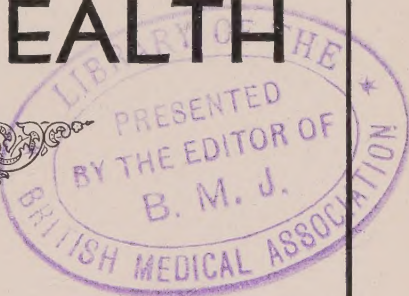
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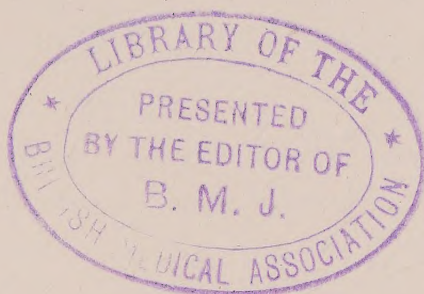
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DEDICATED
TO THE
PARENTS AND STUDENTS WHO ASKED
ME TO WRITE THIS BOOK

FOREWORD

IN this little volume, which I have been pleased to review, is presented a concise syllabus of the foremost thought of the day in educational methods, procedures and content applied to child health—its engendering, preservation, and wholesome promotion, even to adolescence.

To accomplish these ends, the author presents a logical arrangement based upon university teaching and research for several years, and especially rich in literature citations and illustrations. Some dogmatism may even be held essential in emphasizing important points, supported by the author almost throughout by quoted authority or notable opinion.

It is to be noted that the trend for years in public advancement has been towards the Child to which each succeeding report of various appraisal committees on public health activities also continues to give more and more "credit points." Thus, we find Child Health to be truly a major in the intensification of effort which is being made on all sides to better the life, health, and morals of the on-coming generations.

EMERY R. HAYHURST, M.D.
Professor of Public Health and Hygiene,
The Ohio State University



PREFACE

CHILD HEALTH is a companion volume to the author's book, HOME CARE of THE SICK, which tells what to do when sickness enters the home. It is intended for classes in Adult Education and Child Care which are now being taught in Universities. The text has already been used with satisfaction in the Ohio State University, and also with Mothers' Clubs and Child Conservation Leagues.

Even though there is not much which is original in the book, it may fill a definite need, inasmuch as it contains scientific information given in non-technical terms, and epitomizes more complete discussions which are usually not easily available. The bibliography is up to date, and the pictures illustrate important features.

I am indebted to Dr. Philip Van Ingen, Professor of Child Hygiene, in the College of Physicians and Surgeons, Columbia University, for suggestions which I received while his student. I am also indebted to Dr. Leroy Colter, Obstetrician in The Christ Hospital, Cincinnati, Ohio. I extend my gratitude for encouragement and assistance to Dr. Andrew

Rogers and Dr. E. R. Hayhurst, Professors in the College of Medicine, Ohio State University. To Dr. Mazyck P. Ravenel, University of Missouri, I express my appreciation for his untiring interest and inspiration.

NORMA SELBERT.

OHIO STATE UNIVERSITY,
COLUMBUS, OHIO,
January, 1931.



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CHILD HEALTH

CHAPTER I

THE EVOLUTION OF CHILD HEALTH WORK

PARENTAL EDUCATION

PRIMITIVE parents cared for their children without any reference to scientific theory. They worked almost wholly alone, having only general intuitive knowledge, their own crude experience, and traditions which were handed down by elders for the difficult tasks which come with parenthood. Mothercraft was merely a practice, learned by actually caring for children.

Eventually, as knowledge in the field of medicine increased and methods of preventing disease were recommended, the need of theoretical knowledge for parenthood was recognized.

Finally, with discoveries in physiology, bacteriology, and psychology, education for parenthood became a planned undertaking concerned with the child's nature and growth. Progress in and outside the home brought corresponding progress in methods of caring for children. Parents are now not satisfied with merely giving physical care; they are more and more concerned with the child's ability to foster his own growth. This points to a conception of parenthood which accepts the ideal of maximum and continuous

growth as an aim. "The ideal of growth means training of such sort as to facilitate understanding and appreciation of all human beings."¹

The idea that training of a scientific sort is necessary prior to marriage is taking hold at present.² It makes for the type of intelligence which tends to decrease the risks that come with maternity, and teaches parents how they may care for the child before he is born. This conception of adult education is in line with modern theories of education, and develops parents who can adjust themselves progressively to situations in which the child must live.

RECENT DEVELOPMENTS IN CHILD WELFARE

No evidence has come down to us that ideas regarding school education for young children were developed before 1628, when John Amos Comenius wrote "The Great Didactic," and "The School of Infancy." He planned a "Mother-School" for children below six years of age and sketched the duties of parents. (See Chapter VIII.)

In 1636, St. Vincent de Paul brought public authorities in France to acknowledge the civil existence of foundlings. He, with Mlle. Le Grass, organized the secular order famous as the

¹ Bode, Boyd H.: "Fundamentals of Education," The Macmillan Company, 1921, New York, page 13.

² Richardson, Anna E. and Miller, Mabel Lawrence: "Child Development and Parental Education in Home Economics; a Survey of Schools and Colleges." Published by the American Home Economics Association, Baltimore, Md.

Sisters of Charity to care for the helpless and the sick.

In 1817, Dr. Bunnell Davis, London, England, wrote "A Cursory Inquiry into Some of the Causes of Mortality among Children with a View to Ameliorating the State of the Rising Generation in Health, Morals, and Happiness." (Published by Longman.)

Pastor Fliedner and his two wives, Frederika and Caroline, organized systematic training for Deaconesses and a School of Nursing in Kaiserswerth, Germany, about 1836. They also trained women in mothercraft and kindergarten work.

Paris pensioned nursing mothers in 1876; had day nurseries in 1844; and the first public milk station in 1892.

The United States had its first milk station in 1893, when Mr. Nathan Strauss, philanthropist, endeavored to decrease the infant death rate in New York City. Summer after summer, hospitals and dispensaries were overcrowded with babies who suffered from "summer complaint." Many cases could be traced to dirty milk. Mr. Strauss therefore arranged to dispense pure milk to poor parents who had infants. He also paid doctors who were specialists to prescribe feedings for children of different ages. Nurses and nutrition workers were employed to fill the prescriptions from the best milk. Parents came daily to the milk stations and got bottles filled with food for their babies.

However, this provision did not materially decrease the infant mortality rate. Investi-

gations showed that it did not meet the individual needs of each child. Moreover, many mothers did not know how to handle the feedings which they received for their babies. Morbidity and infant mortality decreased with the appointment of public health nurses who went into homes to give personal instruction in child welfare. They taught parents how to make up an individual formula for each child.

Scientific knowledge which deals with problems in child welfare is still imperfectly grasped, but parents and educators are everywhere more and more alert concerning their responsibilities.

The National Association of Parents and Teachers, a nonsectarian, noncommercial, nonpolitical organization, was formed in February, 1897. State and local chapters have been organized. The objectives may be summarized as follows: "To promote child welfare in home, school, church, and community; to secure more adequate laws for the care and protection of women and children; to bring into closer relation the home and the school, that parents and teachers may cooperate intelligently in training the child; to develop united efforts between educators and the general public to secure for every child the highest advantages in physical, mental, moral, and spiritual education."¹

The publication: "Infants Mortality Statistics," in 1906, by the United States Census

¹ "National Congress of Parents and Teachers: Its History, Organization, and Program of Service," published at 1201 Sixteenth St., N. W., Washington, D. C.

Bureau included reports from 1900 to 1906. This publication revealed the fact that there was a tremendous loss of life just before, and soon after birth, as well as at the natal period. It did much to promote child welfare.

CURRENT MOVEMENTS TO IMPROVE THE HEALTH OF CHILDREN IN THE UNITED STATES

Chronology:

1907 "The National Child Labor Committee," a semi-official agency, a corporation dependent upon donations for its budget, organized to consider the employment of children. Its purpose is: "To investigate and report facts concerning child labor, to raise the standard of parental responsibility with respect to the employment of children; to aid in promoting the enforcement of laws relating to child labor; to co-ordinate, unify, and supplement the work of state or local child labor committees and encourage the formation of such if they do not exist."¹ A journal, "The American Child," is published monthly.

1908 The first bureau of child hygiene in a municipal health department was established in New York City by Dr. Josephine Baker.

¹ "National Child Labor Committee, What it is, and What it does," published at 215 Fourth Avenue, New York City

1909 A medical conference was held in New Haven, Connecticut, "To Study Causes and the Prevention of Infant Mortality."

The "First White House Conference on Child Health and Protection" was called by President Theodore Roosevelt on January 25-26, 1909. About 200 child welfare workers came to the East Room of the White House from all parts of the United States. They came in answer to the President's invitation to consider problems pertaining to dependent children. On February 15, 1909, President Roosevelt presented the report and recommendations of this conference to Congress, and to the governors of the various states.

1912 "The United States Children's Bureau" was established in the Federal Department of Labor, Washington, D. C., "To investigate and report upon all matters pertaining to the welfare of children and child life among all people; to investigate the question of infant mortality and birth-rate; to investigate orphanages, the employment of children, accidents, diseases, and legislation affecting children; to supervise maternity and child hygiene work."¹

The first division of child hygiene in a state department of health was established in the state of New York.

¹ Tobey, James A.: "The Children's Bureau, Its History, Activities and Organization," Johns Hopkins Press, Baltimore, Md., 1925.

"The Division of Child Hygiene," in the Ohio State Department of Health (similar service is given in other states) is charged with the care of the pre-school child from the public health standpoint. The activities have to do with: "Orthopedic work, pre-school conferences, the inspection and licensure of maternity hospitals, the promotion of 'Health Builders'—formerly called: 'Little Mother's Leagues'—and other similar activities. Public Health nurses, doctors, and lecturers constitute the professional staff. A motion picture operator is in charge of the presentation of films which are shown to groups upon request. A large amount of literature is distributed, health exhibits are conducted at county fairs and other gatherings. Statistics are placed in presentable form."¹

1914 "The Smith-Lever Act" provided funds for college extension work in Agriculture and Home Economics—giving instruction and practical demonstrations in agriculture and home economics to persons not attending colleges. This includes education in child welfare and may be regarded as the forerunner of present day programs for Adult and Parental Education.²

¹ Frank, J. A.: Chief, Division of Hygiene, in a letter dated April 26, 1928, Ohio State Department of Health, Columbus, Ohio.

² "Federal Legislation and Regulations Affecting Land Grant Colleges," page 38, in Circular No. 251 U. S. Department of Agriculture, 1925.

1915 The United States Census Bureau established the birth registration area. Registration of births and deaths depends upon state laws. The death registration

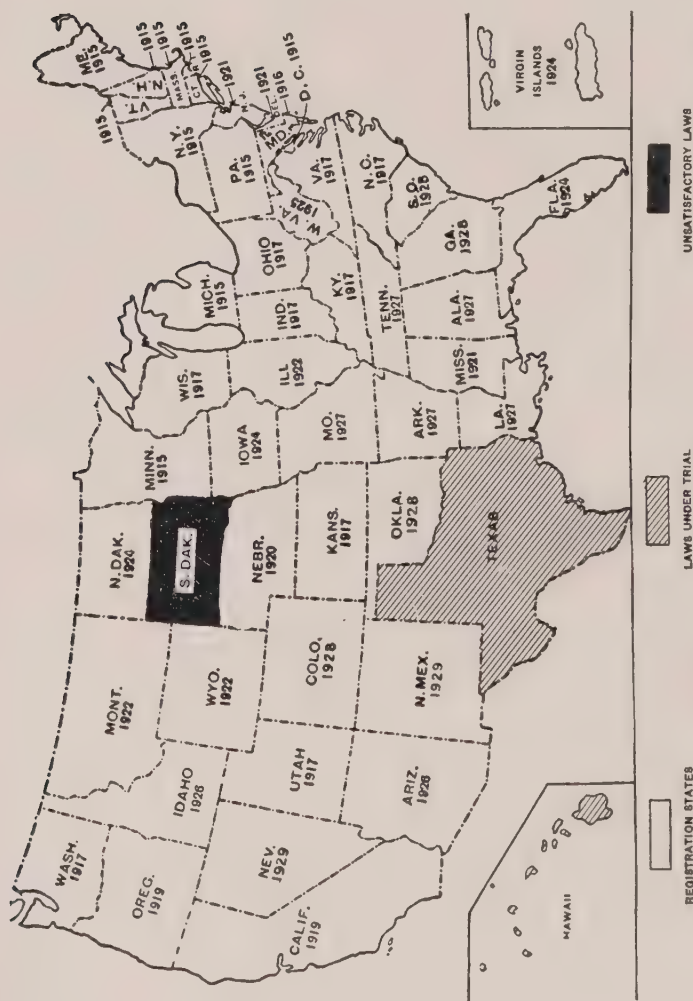


Fig. 1.—Birth Registration Area, May 26, 1930. Figures indicate years in which states were added to birth registration area. (U. S. Department of Commerce, Bureau of the Census, Division of Vital Statistics, Washington, D. C.)

area was established earlier. A state to be admitted to the registration area must register at least 90 per cent of the births and 90 per cent of the deaths which occur. All but two states, Texas

and South Dakota, were accepted in the registration area by May 29, 1930.

1919 The "Second White House Conference on Child Health and Protection" was

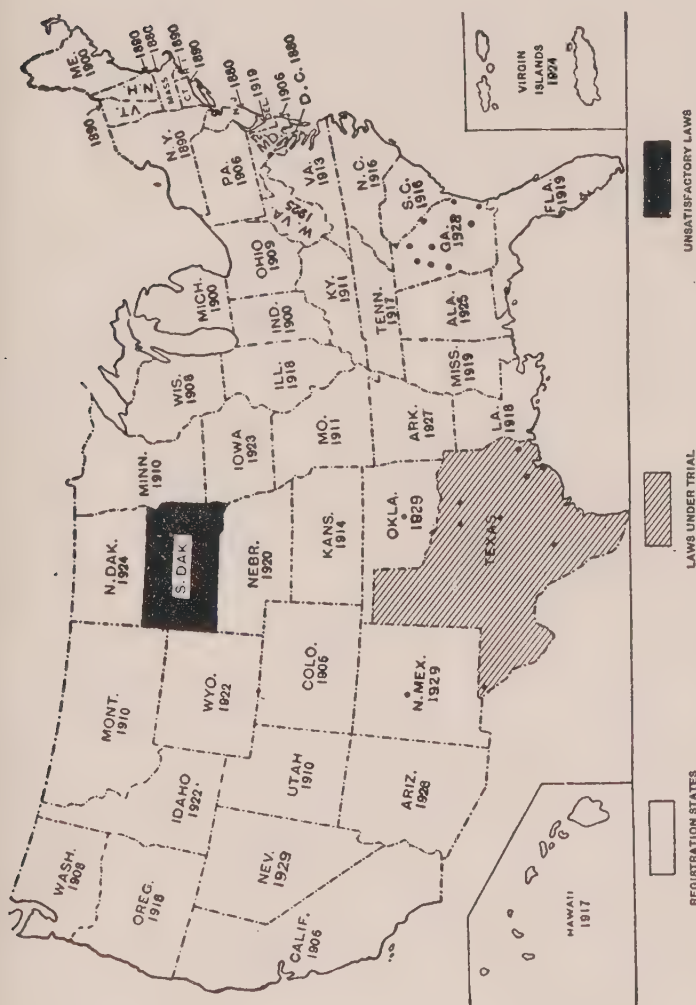


Fig. 2.—Death Registration Area, May 26, 1930. Figures indicate years in which states were added to death registration area. (U. S. Department of Commerce, Bureau of the Census, Division of Vital Statistics, Washington, D. C.)

held May 5–8, 1919, in answer to invitations sent out by President Woodrow Wilson with funds supplied from the War Emergency Fund and the U. S. Children's Bureau. The President was

unable to address the meetings personally, inasmuch as he was in Paris attending the Peace Conference. Miss Grace Abbot, Chief of the Children's Bureau, was secretary of the Conference.

- 1921 "The Sheppard-Towner Act, enacted by Congress, and approved by President Harding, was defined as: "An Act for the Promotion of the Welfare and Hygiene of Maternity and Infancy." The United States Treasury paid \$5000 outright to each state. A total annual appropriation of \$1,240,000 was assigned to states according to population, and was given on certain conditions. To receive full quota, the state was obliged to grant from its treasury (for educational child welfare) an amount equal to that given by the Federal Government. In 1927, 24,500 babies survived their first year of life. They would have died had the conditions of 1921 prevailed. However, about one-half of the 138,000 infant deaths which occurred might also have been prevented. Country-wide maternity and infant centers extended slowly. As yet only 162 of the 2498 countries in the United States are listed.¹

¹ Abbott, Grace: "Accomplishments and a Challenge," "The Public Health Nurse," Vol. XXX, No. 12, page 616, Dec., 1928. "The Sheppard-Towner Act, Text of the Federal Law," in the "Ohio Public Health Manual, Sec. 1237-1 to 4, pages 54-55. Published by Ohio State

1923 "The American Child Health Association," and unofficial agency, working through various channels:

"Through discovery of the facts surrounding the health of children and study of ways and means to develop new standards of health protection, through applied knowledge of preventive medicine; through the study and promotion of the teaching and practice of health in the schools; through co-operation with the public health authorities; and through printed publications and every other possible medium of publicity.

There are five divisions within the Association, each developing one of these services: Research, medical service; health education; public health relations; publications and promotions."¹

The Declaration of the Rights of Children was adopted by the Fourth General Council of the "Save the Children Fund" at an international meeting held in Geneva on February 23, 1923.

1924 The Fifth Assembly of the League of Nations, on Sept. 26, 1924, adopted the following resolutions: "The Assembly

Dept. of Health, Columbus, Ohio. U. S. Children's Bureau Publication No. 186; "The Promotion of the Welfare & Hygiene of Maternity and Infancy; the Administration of the Act of Congress for the fiscal year ended June 30, 1927." Prepared under the direction of Dr. Blanche M. Haines.

¹ "Five Years of the American Child Health Association," published at Headquarters, 370 Seventh Avenue, New York City.

approves the Declaration of the Rights of the Child, known as 'The Declaration of Geneva,' and invites the States, members of the League of Nations, to apply its principles in the work of the protection of Childhood."

LEAGUE OF NATIONS DEFINES RIGHTS OF THE CHILD¹

"By the present Declaration of the Rights of the Child, commonly known as the Declaration of Geneva, men and women of all nations, recognizing that mankind owes to the child the best that it has to give, declare and accept it as their duty that, beyond and above all consideration of race, nationality, or creed:

1. The child should be given the means needed for its normal development, both materially and spiritually;
2. The child that is hungry should be fed; the child that is sick should be nursed; the delinquent child should be reclaimed, and the orphan and the waif should be sheltered and succored;
3. The child should be the first to receive relief in times of distress.
4. The child should be put in a position to earn a livelihood and should be protected against every form of exploitation;

¹ "The World's Children," the publication of The Save the Children Fund, March, 1926, Vol. v, No. 6, page 82, published by The Weardale Press, Limited, 26 Jorden St., W. C., 1 London, England.

5. The child should be brought up in the consciousness that its talents must be devoted to the service of its fellowmen."

1928 Department of Parental Education was established in the Ohio State University, and also in the Ohio State Department of Education, Columbus, O.

1929 The President of the United States, Mr. Herbert Hoover, issued a call for a White House Conference in Washington, D. C., November, 1930, for Child Health and Protection. Four major problems are considered by Committees composed of specialists in the fields concerned.

Section one of the organization relates to the physical well-being of the child. Its work is carried on through three committees, one on Growth and Development, another on Prenatal and Maternal Care; and another on the Medical Care for Children.

Section two is devoted to Public Health Service and Administration, working through three committees, one on public health organization, another on communicable disease control, and a third on milk production and control.

Section three of the Conference is studying the education and training of the child—in terms of his mental and physical health as related to school training. Seven committees have been set up under this section. They deal with: The family and parent education; the infant

and the pre-school child; the school child; vocational guidance and child labor; recreation and physical education; special classes; youth outside of home and school.

Section four is concerned with the Handicapped; Prevention, maintenance and protection. Consideration is given to state and local organizations for the handicapped; the physically and mentally handicapped; socially handicapped—dependency and neglect; socially handicapped—delinquency.

The functions of the Committees of the White House Conference include surveys of the entire field of public health and public welfare work, and reports which suggest practical and efficient suggestions for improving State and Federal Systems. In the words of the President:

“We already have enough knowledge which, if brought together, compared and sorted, would give us some approach to the normal child. The crux of the problem is as quickly as possible to bring what knowledge we have into the open, broadcast it, and make it familiar to the average busy, but deeply concerned parent.”¹

The aim of The Third White House Conference on Child Health and Protection, held in November, 1930, may be summarized in the words of President Herbert Hoover:

¹ Page 13 of Address by H. E. Barnard, Director of the White House Conference on Child Health and Protection, delivered before the Indiana League of Women Voters, Indianapolis, published. March 21, 1930 by U. S. Department of Interior, Washington, D. C.

“There shall be no child in America:

That has not been born under proper conditions

That does not live in hygienic surroundings

That suffers from undernourishment

That does not have prompt and efficient medical attention and inspection

That does not receive primary instruction in the elements of hygiene and good health

That has not the complete birthright of a sound mind in a sound body.

That has not the encouragement to express in fullest measure the spirit within which is the final endowment of every human being.”¹

A synoptic view of child health work shows that it has evolved from natural activity—which was merely a series of tasks performed to bring physical comfort—to the present day program which includes the ideal of unlimited and continuous growth for parents and children.

Human beings, as well as animals, seem to have innate tendencies which prompt their behavior, and they readily acquire practical knowledge which promotes growth. However, they are not born with the intelligence necessary to care for their children in the present day world. Their innate tendencies are out of date—behind the times. Life has grown com-

¹ “White House Conference on Child Health and Protection,” published in June, 1930 by the U. S. Department of the Interior, Washington, D. C., page 1, “Ohio Health News,” Vol. vi, No. 8, April 15, 1930, published by the Ohio State Department of Health.

plex; they must, therefore, learn how to prevent diseases and unhappiness. The basis of parenthood may be the inborn parental impulse with



Fig. 3.—Healthy mothers and babies. The women attended the course for motherhood in the Pre-natal clinics conducted by the College of Medicine, Ohio State University. They now come regularly to the Healthy Baby Weighing Station for medical advice.

its natural sympathy and interest, but the hope of parenthood is education; *education for growth.*

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CHAPTER II

PROBLEMS AFFECTING THE GROWTH OF CHILDREN

CHILDREN differ, and the means of developing them must vary. However, every individual needs adequate physical care, including: pure drinking water, a balanced diet, fresh air, sunshine, sufficient sleep, personal cleanliness, and sanitary surroundings. Then, too, growth is affected by the psychologic care he receives, also by the economic and social status of his ancestors.

Physical Problems.—*Parents Are Responsible for the Child's Equipment at Birth and His Environment.*—They must know certain facts in order to give the care which nurtures strong bodies, good habits, and desirable emotional attitudes. Knowledge of the structure and limitations of the child's body, and acquaintance with the customs of his associates will solve many problems. Parents frequently fail to understand their child because they attempt to interpret his problems in the light of their own experiences. Life is progress, change, growth. The situations under which the child lives are unlike the situations under which his parents lived. They must therefore study the environment in which he works and plays, and the trend of the times in which he lives so as to understand and help him.

The Child's Growth Can Never Run a Favorable Course if His Parents Will Not Be Socialized.—

Studies¹ indicate that the mortality is higher among the children of parents who segregate in groups which disregard present-day standards in child welfare. "Education is essential to fine living. Where people do not read there is high death rate, there are many diseased and crippled children, and there is much immorality."²

Many infants die from malformations with which they were born. Death often comes from injuries incurred during and immediately after birth; from not having defects corrected in due time; from exposure and disease; from lack of breast milk; also from infected milk or food, and improper feeding. *High infant death rates are due to no single cause other than perhaps general ignorance or carelessness.*³ Adequate prenatal care and superior obstetrical service may prevent many malformations and injuries.

¹ Van Ingen, Philip: "The Melting Pot and Babies Lives," printed in the magazine entitled: "Mother and Child," Vol. iv, Nos. 4 & 5, published by American Child Health Ass'n, New York, April and May, 1924. Burkhardt, Leona Gaile: "Health Work among the Mexicans in Austin, Texas," printed in *The Public Health Nurse*, Vol. 21, No. 8, August, 1929, pages 436-437. Pub. 370 Seventh Ave., New York.

² Charters, Jessie A.: "Better Parents Bulletin," Vol. i, No. 1, published by Division of Parental Education, Ohio State Dept. of Education, Columbus, Ohio, Dec., 1929.

³ "Infant Mortality": A leaflet for free distribution, issued by Ohio State Dept. of Health, Columbus, Ohio.

A study made by the Child Hygiene Section of the American Public Health Association, indicates that the mortality in the first day for babies delivered in hospitals was three times as great as for those delivered at home; that the mortality for infants delivered by internes was twice as high as for those delivered by private physicians in hospitals.¹ These facts are not arguments against hospitalization for maternity cases, as many of these mishaps were in desperate cases, but they argue, nevertheless, for a consideration of the standards which exist in the institutions to which the mother may go. *There are many reasons why the baby's birth should occur in a well-regulated hospital where every available scientific safeguard is at hand to prevent hazards.*

“Among the essentials of a lowered infant mortality rate are: medical and nursing care for all mothers and infants; adequate teaching in the hygiene of maternity and infancy made available for all girls and women; community responsibility for decent housing and sanitation; and recognition that an adequate income, self-respectingly earned by the father is the beginning of wisdom, the only fair division of labor between the father and the mother of young children,

¹Levy, Julius: “Maternal and Infant Mortality,” printed in “The Transactions of the American Child Health Association for 1928.” Abstract printed in February, 1929, issue of The American Journal of Public Health, Vol. xix, No. 2, 1929.

and the strongest safeguard against infant mortality.”¹

Economic Problems.—*Reactions between Economic Conditions and the Growth of Children Is Not Fixed.*—Poverty may be a stimulation to the formation of admirable tendencies, but in many instances it is a basic fact in the cause of crime and handicaps. The solution of many problems comes with the elimination of poverty.

“Every normal man and woman is yearning for a home, and the challenge of its attainment calls for qualities of mind and heart of the highest order.”² Enthusiasm for a family, and the ability to create a home, varies with income, permanency of residence and practical training in home economics. The problem is to provide homes which are centers of enlightenment—homes which promote not only physical development, but also mental and moral growth.

“How much do babies cost,” said he
The other night upon my knee.
And then I said: “They cost a lot;
A lot of sleepless hours and care,
A lot of fear and trying dread,
And sometimes many tears are shed
In payment of our babies small,
But every one is worth it all.”—EDGAR GUEST

¹ Lathrop, Julia C.: “Income and Infant Mortality,” American Journal of Public Health, pages 270-274, April, 1919, Vol. ix, No. 4.

² “Owning a Home,” Circular No. 15, Engineering Series, Sept., 1928 (no charge), Ohio State University, Columbus, Ohio.

It is impossible to make an exact appraisal of human life in terms of dollars and cents, but federal and state governments have accounts which estimate amounts which parents may expect to spend for their children. The Childrens Bureau of the U. S. Department of Labor has estimated that a child in a family of the \$2500 a year class has cost his parents at least \$7425.00 by the time he is eighteen years of age. This figure includes the initial cost of birth, and the cost of food, clothing, shelter, public school education, medical care, recreation, and other expenses incidental in the life of the growing child. The United States Government allows \$400.00 yearly exemption from income tax for each dependent child under eighteen years of age. The State of Ohio allows, under certain conditions, \$35.00 per month to poor, widowed mothers with one dependent child and \$10 for each additional child not entitled to an age and work certificate.¹ Other states have laws similar to the Ohio law.

Value Human Life on the Basis of Health and Intelligence.—Consider the cost of being born, of food, shelter, clothing, health, recreation and education, as part of the construction of the human machine—making it ready for the period at which it will be a producer. The cost of being born is about \$250.² The Average American

¹ General Code of Ohio, Section 1683. Mothers' Pension Law.

² "Current Information," page 4, issued April 29, 1930, The White House Conference on Child Health and Protection, Dept. of Interior, Washington, D. C.

loses seven days a year through sickness. More than \$6,000,000,000 could be saved annually by applying modern principles of preventive medicine and public health. (This sum represents the value of the lives lost through preventable deaths.)

Incorrect appraisals may follow physical and mental tests, inasmuch as a *child's physical and mental states are affected by his social life*. A comprehensive study of the health problems affecting children must include social problems, such as: probation in children's courts, illegitimacy, child marriages, child adoptions, and other complexities.

Children reflect the habits of their parents. They, not the children, must be blamed when standards are low. Instead of sending the delinquent child to an institution, probate courts have developed a system which enables the child to live in his natural home under the supervision of an agent of the court, known as the "probation officer." This officer personally influences the child's parents or guardians, and arranges programs which tend to build up good habits. *Probation prevents or suspends commitment*, and thus avoids the stigma which is always attached to residence in a reformatory.

Studies Have Proven That the Family Is the Most Desirable Place for the Growth of Children.—Improvements perfected in the home help not only the child who was reported to the court for need of treatment, but help his parents also. The practice is to ascertain the causes of the

delinquency and to remove or counteract them.¹ The aim is to enable the child and his family to develop as they can. With a helpful probation officer the child may go far, even though the parents are indifferent. Then too, many catastrophes which terminate in dependency and delinquency among children may be prevented. The problem is to consider how the child's individuality and development may be secured in his own family. Even though outside aid may be required, when for grave reasons he cannot be cared for suitably in his home, he should receive personal attention.²

Recently Mr. George Bernard Shaw, in a personal note to Judge Henry Neil, referred to the need of creating a better nourished generation. An abstract of what he wrote follows:

"There are property owners who say that it is confiscation to tax one man's property to pay for the education of another man's children. They have learned to say: 'Our Father' without saying 'Our Children.' The one without the other is blasphemy. Also, it is folly. *Neglected children* cost more than well nourished ones to everybody except their immediate parents . . . "

¹ Chute, Charles L.: "Probation in Children's Courts," a monograph prepared for the U. S. Children's Bureau, Government Printing Office, Washington, D. C.

² Folks, Homer: page 44, "White House Conference on Child Health and Protection," published U. S. Dept. of the Interior, Washington, D. C. "The Unstable Child" by Florence Mateer, published by D. Appleton & Co.

Social Problems.—*The Illegitimacy Problem in Child Welfare.*—Illegitimacy occurs under a variety of conditions. It is not always the result of a tendency toward evil. Studies made by the United States Children's Bureau reveal the fact that many unmarried mothers are young girls who were in unprotected situations. Nearly half of them are girls under twenty years of age, and 2 per cent are girls between ten and fifteen years old. Some of them are orphans who had unhappy homes and inadequate education. Many were friendless, and the majority were obliged to earn their own living in the less skilled occupations, including domestic service.

The number of illegitimate births every year in the United States is estimated to be about 60,000. The rate is approximately 23.3 illegitimate births per 1000 live births. The rate is very high among the colored population.¹

Illegitimacy Should Not Keep the Erring Woman from Getting Protection, and the Medical and Nursing Care Which Every Pregnant Woman Needs.—Whatever differences there may be regarding illegitimacy, there must be agreement about the child's right to get a good start in this world. The death rate is consistently higher among illegitimate babies than among babies born of marriage. Unmarried pregnant women try to conceal pregnancy, and unmarried

¹ Taylor, Eleanor: "Nobody's Child," printed in May, 1930, issue of *The Woman's Journal*, published by The Woman's Citizen Corporation, 171 Madison Ave., New York City.

mothers usually refuse to nurse their babies. Every infant needs breast feeding for at least three months (preferably six). *To prevent infant deaths, due to lack of breast feeding, arrangements must be made so as to have every mother, including every unmarried mother, nurse her baby at regular intervals.* She must get adequate diet and rest during the period of lactation. Provision must also be made for the child's physical care, his education, and recreation. Until recently it has been almost impossible for unmarried mothers to get care for themselves and their babies. Legislation is now making life less hazardous for illegitimate children, but many problems which result in morbidity and death cannot be solved through legal procedures.

The Children's Bureau has formulated four suggestions for community programs in order to give every unmarried mother and every illegitimate child a chance for a happy, successful life:¹

1. Affiliation of maternity homes with children's agencies to provide supervision of children when they are discharged from a maternity home.

2. Provision for temporary care in boarding homes or institutions for unmarried mothers and their children not readily adjusted in the

¹ Lenroot, Katherine and Lundberg, Emma: "Illegitimacy As a Child Welfare Problem," published for U. S. Children's Bureau, Government Printing Office, Washington, D. C.

home of relatives, in their places of employment, or in other families.

3. Greater willingness on the part of both public and private agencies to aid unmarried mothers in caring for their children.

4. More intensive attempts by social agencies to establish paternity in order that part, at least, of the support of children of illegitimate birth may be obtained from their fathers.

Strict regulation of maternity homes by health departments or other equally competent official agency would do much to operate such places successfully.

Child Marriages.—It has been estimated from the United States Census Bureau figures, extending over a period of thirty years, that 350,000 women living today were married at sixteen years of age or younger. At present, educators in high schools are concerned with boy and girl students who are married even though they are still subject to legal enforcement of compulsory school attendance laws. *The growth of children, their physical well-being, and their ethical training, is undoubtedly influenced by the immaturity of mothers.*

A solution of problems connected with child marriages is found in the California system of compulsory part-time schools for all who are under eighteen years of age. Here the curriculum can be arranged to enable the married boy to hold a maintenance position while he devotes a portion of his time to laboratory or class work which will be helpful to him in a wage

earning occupation. Each married girl receives training in personal hygiene, homemaking, community responsibility and child welfare.¹

Child Adoption.—"Children bring their own love with them when they come. But if they come not, let there be peace and rest . . . The world is full of children, and so is heaven. Lovely children are not rare!"²

"The beggarly question of parentage—what is it after all! What does it matter, when you consider it seriously, whether a child is yours by blood or not? All the little ones of our time are collectively the children of us adults of the time, and entitled to our general care. That excessive regard of parents for their own children, and their dislike of other people's children is like class-feeling, patriotism, and save-your-own-soul-ism, a mean exclusiveness at bottom."³

Parenthood is an outgrowth of the maternal and social tendencies which prompt the protection of the younger and weaker by the older and stronger generation. The child has always been the greatest factor in establishing home ties. The social life in the home is enlarged and improved by children. Moreover, men and women who do not have children usually have difficulty in trying to find adequate substitutes

¹ Emery, Christine: "How San Diego Schools Cope with Child Marriages," *The Forecast*, pages 375-376, published at 6 E. 39th Street, New York, December, 1927.

² Ingelow, Jean: "Supper at the Mill."

³ Hardy, Thomas: "Jude the Obscure," page 324, Harper Brothers, 1923.

for the normal emotions which naturally eventuate in parenthood. They lack vital contact with the realities of life and are inclined to be selfish.

Married couples who cannot have children of their own creation should adopt children when-



Fig. 4.—Three sisters with their little brother. Four prize children.

ever possible, so as to prevent the blank despair which often overwhelms childless people. Parents who are unable to create more than one child should adopt at least one more so as to give their child juvenile companionship.¹ *“Note the failure of the single-child household! Poor little baby! Surrounded by over-anxious parents, spoiled, no children to play with, bored by*

¹ “The Beacon Light,” a journal to promote interest in Child Adoption, published by The Children’s Home Society of Ohio, 40 West First Avenue, Columbus, Ohio.

adults. Then, perhaps, illness and it may be death—when it is too late to have another child.”

“On the other hand, compare the woman of forty with one child and all maternity finished, with the woman of the same age who has four children. Who has the advantage? *Not the former.*”¹

*Child adoption is the means of bringing completion to childless couples and happiness to homeless children. It is never an irrevocable step, and errors of selection can usually be forestalled. Medical examinations and mental tests indicate the child's condition and predict his potentialities. It is difficult to estimate the capacity for development when examining infants but it is more preferable to make adoptions while children are young. Aim to prevent the need of making replacements. Discourage hasty adoption. The best practice and the best legislation requires a probationary period of one year. “The combined critical judgment of the social investigator, the court, the physician, the mental examiner, should enter into the regulation of adoption.”*² To prevent promiscuous barter of children, no person is allowed to place children without permission to do so from the

¹ Lord Dawson, physician to the King of England, page 21, in “Love and Marriage,” published in 1923 by Critic & Guide Company, 12 Mt. Morris Park, New York.

² Gesell, Arnold, “Psychological Guidance in Child Adoption,” published for the Children's Bureau, U. S. Government Printing Office, Washington, D. C.

court. The only means of effecting legal transfer for children is by a decree from the court.

Consult an Authorized Child Placing Agency When About to Adopt a Child.—Apply to the one which is nearest your residence. Information regarding authorized child-placing agencies may be obtained from the Child Welfare League of America, 130 E. 22nd Street, New York, N. Y.

“Clinical safeguards should be urged, but *adoption should not be absolutely scientific lest it lose its fine elements of faith and adventure and sacrifice.*”¹

¹ Gesell, Arnold, “Mental Growth of the Pre-School Child,” page 424, Macmillan Company, 1925. “Concerning Adopted Children” by Jesse Taft, pages 10-14, in *Babino*, a magazine published by The Children’s Hospital, Columbus, Ohio, May 1, 1930.

CHAPTER III

PARENTS

The Child Cannot Be Detached from His Parents. He is affected by their relation to each other and reflects their development, even though they hire specialists to promote his growth. The attributes and the customs of his parents make the child what he is. If he has a weak character, he may have a meagre inheritance, a meagre physical inheritance, or a meagre education. What people call "temperament" in children can usually be attributed to some physical defect, improper food, the result of fatigue, or chaos in the home. Most parents are willing to do what they can when they realize that their activities are connected with their child's development.

Mating.—*Boys and Girls, and Young Men and Women, Must Be Taught to Consider the Results of Their Behavior.*—They should realize that wooing and courting are acts which tend to bring about attitudes that naturally lead to marriage. Intelligent persons will not foster passionate affection and intimate responses in those of the opposite sex who are unfit for marriage. They consider it unethical to accept or reciprocate solicitous attentions unless the lover is a mate, a match, an equal. *Marriage*

which is indissoluble is a union of mates. It is a binding contract founded on mutual relation of husband and wife as companions, comrades, partners, the aim being the creation and development of home and children. The happiest marriages¹ are among persons who pool their talents and possessions. They share gains and losses, and neither husband or wife expects to gain without giving. *Mating enlarges personality* and tends to complete individuals. Married lovers may live a broader, deeper, and happier life than they could possibly live outside of wedlock.

“Marriage will make changes in husband and wife, but the gains in marriage are infinitely greater than any fancied losses can be.”² To make the gains positive, the husband should develop leadership and provide the means to make a home. *The wife must unify her interests with her husband's interests.* Marriage is seldom successful when she tries to fit his life to hers.

Men and Women Differ. They View Situations Differently, and They Have Physical Differences.—They must learn to adjust themselves to each other if they hope for life-long

¹ “Ideals and Marriage,” a Report of the Committee on Marriage and Home, appointed by the Federal Council of Churches in America, in *Current History*, February, 1929.

² MacMurchy, Helen: “Beginning a Home,” Department of Health, Ottawa, Canada.

team work.¹ The problem of adjustment can be worked out most easily during the *honeymoon*—the period immediately after the wedding ceremony when the bride and groom are exempt from the responsibilities connected with business and homemaking.

Husband and Wife Will Always Find Situations Less Difficult When They Get Away from Relatives and Other Persons Who May Be Meddlesome.—Occasional vacations during which mates are free to relax and play together will tend to clear away difficulties which might develop incompatibility under the strain of routine. There is no virtue in seriousness; gravity may distort one's sense of values. Smiles and laughter will do much to promote a sense of comradeship. "The fruit of the spirit is love, joy, peace; against such there is no law."²

Vacations are usually the most satisfactory times for creating children, since parents tend to be out-of-doors and free from fatigue at this time. Intercourse for creation is a biological-spiritual experience which is most satisfactory when mates are at ease amidst influences which are exalting. *The ability to create a superior child is an endowment from God.* Parents who recognize themselves as part of God will carry with them an irresistible gladness. "Home life is not simply duty, it is a festival. The spirit

¹ Winslow, Kenelm: "Sexual Hygiene in Marriage," Chapter XV in: "The Prevention of Disease in the Individual," W. B. Saunders Company, Philadelphia, Pa.

² The Bible, Galatians V, verses 22-23.

of play is the crown of work and of home life. There is great satisfaction in life for those who are living for the fun of it.”¹

To Husband and Wife.—“Let not father or mother, sister or brother, or any other person come between you. Build your home together in mutual love. Do not admit your dearest friend to the confidences of your heart and home. Let these be sacred between you two. Heal your own differences and heal them promptly. Confess your faults frankly to each other, forgive faults freely in each other. Speak not of these intimate matters to outsiders. Never part in anger; meet with expressions of affection always. Renew your love vows often. Living thus, your minds will grow together, content in the close companionship of your hearts, and your children will rise up to call you blessed.”²

The stronger, the happier the union between parents, the better will the home be for the children. Chaos and dissatisfaction are the fruits of self-indulgence, ignorance, recklessness, and greed. *The maintenance of mutuality between husband and wife is an issue which affects both personalities and their children.* It enfranchises the soul of each. Whereas, infractions of love and equity lead to unhappiness.

¹ Fosdick, Harry Emerson: “Living for the Fun of It,” April, 1930 issue of *The American Magazine*.

² “Advice to Husband and Wife,” issued by The Domestic Relations Court, Franklin County, Columbus, Ohio.

"Courtship under the full moon on a lake, and a thousand and one other romantic situations, cannot help making the girl expect these things after marriage also; but business and profession has a tendency to destroy men's thoughts of romance. Consequently marriage frequently finds the woman hungry for the days of courtship and the man too absorbed with other affairs to satisfy that hunger."¹ Consideration on the part of the husband, courtesy in public and private life, and other manifestations of his regard for her, will help the wife to realize that love has not vanished with marriage. Nevertheless, women must realize facts. "Once we have mated, nature withdraws from love the fancies that supported it and leaves its continuance to the resources of our intelligence. *How can we fare well in love if we seek not the qualities that make a family and a home, but those more visible charms that arouse our tired flesh?*"²

There Are Many Elements in Marriage.—Sexual love is *not* the whole of marriage; but it is a very vital part of every marriage which is the union of mates.³ Sexual love desires

¹ Tarshish, Rabbi Jacob: "How to get Married and How to Stay Married," pages 38-94 in May, 1929 issue of Soundings, published by The Junior League, 217 E. Broad Street, Columbus, Ohio.

² Durant, Will: "I Want to Be Happy" in July, 1929 issue of Hearst's International-Cosmopolitan. Read "Compensation" an essay by Ralph Waldo Emerson.

³ "The emotions play an important part in love and sexual intercourse. Often well-intentioned mates are

unity with the beloved; it will perfect and enrich those who are affectionate mates. When the union is an expression of affection between partners, both are eager to give and to take. They will study and help each other so as to perpetuate mutuality.¹ Neither husband or wife will claim any right, or make demands of the other. Both will be tender and sympathetic, and thus they will grow more and more fond of each other.

Sexuality will be a sordid experience if it is for personal delight. When the act is for personal gratification the participants tend to grow relentless, unyielding, and unmoved by sympathy. "There is something pathetic in the spectacle of those who are still only able to recognize the animal end of marriage. They point to the example of the lower animals—among whom the biological conditions are entirely different. They have yet to learn the A. B. C. of love."² One way in which human beings differ from animals is that they have the

unemotional to the point of frigidity. They would do well to consult a physician since such abnormal mental states are usually subject to correction upon proper advice. No doubt many divorces might be prevented by taking cognizance of such tendencies." Dr. E. R. Hayhurst, Note dated Aug. 29, 1930.

¹ Ellis, Havelock: "Marriage Today and Tomorrow," The Forum, January, 1929.

² Ellis, Havelock: pages 23 and 24 in "The Art of Life" published by Houghton Mifflin Co., 1929. Also: "Program of The American Eugenic Society," 185 Church St., New Haven, Conn.

power to choose how they shall use the sex instinct.

Much avoidable pain and unhappiness may be prevented by a knowledge of anatomy and physiology, and a mental attitude which recognizes the fact that sex exercise between husband and wife may serve a purpose other than reproduction and personal satisfaction. It is a mental and spiritual love-embrace, and in its perfection it exalts mates to the utmost heights of mental and spiritual expression. Its highest possibilities can be reached by using it as an expression of endearment as well as a means of creating a family.

Prior to marriage, both the man and the woman should have a physical examination, have defects corrected if possible, and *learn what is necessary to lift sex affairs above mere physical gratification* into the realm of the mental and spiritual. Instinct is not enough to prevent the hazards which may come with coitus. Instinct is not enough for home building and parenthood.

*Home is Essentially a Place for Restoration.*¹—Here each member of the household should find physical comfort and relaxation. Food, restful chairs and lounges, loose raiment, healthful ventilation, proper illumination and orderliness are important physical factors in recovering from fatigue.² Circumstances in the home

¹ Selbert, Norma: "Features of an Ideal Home," pages 25-27 in "Home Care of the Sick," W. B. Saunders Company, Philadelphia.

² Galbreath, Lillian M.: "Living on a Man's Schedule" as told to Vera Kelsey in the May, 1929, issue of The Forecast, published at 6 East 39th Street, New York.

should safeguard the conception of children and prevent hurried sexual intercourse. Parents may learn to budget time and energy so as to prevent haste and impatience in dealing with each other and their children. *Thoughtful people will plan to have children—of their own flesh and blood, or by adoption.* If they will not stress the importance of having costly things they can usually afford children. It is really best to have only those articles which are necessary for healthful, happy living. *Avoid crowding the home with things.* Leave space for the people who live and visit in the house. Avoid the accumulation of property which may hamper activities that are desirable.

A study made for the Bureau of Vocational Information¹ to analyze the motive which takes married women from their homes included interviews with one hundred wives, mothers, homemakers and professional workers, having from one to six children each. An analysis of the motives which they gave for work outside of their homes may be summarized as follows: need of outlet for energy, 87; financial necessity, 38; to enrich content of life, 22.

¹ Collier, Virginia Mackmakin: "Marriage and Careers," The Channel Bookshop, 279 Park Avenue, New York.

See also: "The Influence of Employment Upon the Fertility of Women" published in The Statistical Bulletin issued by the Metropolitan Life Insurance Co., May, 1926. "Protection of Women in Industry and Commerce before and after Child birth," Published in 1929 by International Labor Office, Geneva, Switzerland.

The majority stated that the effect of marriage and motherhood increased their ability as workers outside the home. Seventy-five of the hundred women who reported had excellent, nearly perfect health. Fifty-six had husbands who helped with home and children. Practically all who enjoyed work had had training and experience before marriage. The majority of these women said what may be summed up in a statement made by one of them: "I would rather be very tired and interested, than somewhat tired and not much interested." Other women explained that they had servants to do their housework and they therefore worked outside their homes so as not to be "social parasites"—women who do no productive work whatsoever.

Many Mothers of Dependent Children Work Outside of Homes.—They rise early and are off. Later their children crawl out, get themselves something to eat and go to school or play truant, as the case may be. When the tired parents—no matter how well inclined they are—get home, they have no time or strength to teach morals, so the children drift.¹ Most babies seem to need five and three-quarter hours of daily care.² When the mother does not give

¹ Upton, Harriet Taylor: "Four Reasons Why Our Young People Are in Institutions," in *The Ohio Voter*, page 6, published by The League of Women Voters, Cincinnati, Ohio, June, 1929.

² Brossard, Laura Cowley: "A Study of Women's Work," made for U. S. Bureau of Home Economics, Washington, D. C.

such, the baby may be neglected. Moreover the child likes to think that his mother is permeated with ideas about him. The realization that mother is not preoccupied, that she is most concerned with her child's welfare will foster affection and an awareness of security. The mother needs to be present to console and soothe her family. She should teach her children how to grapple with problems as they occur and she cannot do so if she is not closely associated with them.

The family cannot be happy unless the mother is happy, and there are women who will not be altogether happy without work which takes them from their homes.¹ Nevertheless *a solution to the problems of working mothers may be found through consideration of the family's needs.* Marriage is a vocation. The woman who marries should learn how to be an efficient home executive. To be successful she will make adjustments which bring happiness to her husband and her children. Her own happiness will develop with the realization of personal usefulness. She should forego temptations which may jeopardize the welfare of those who

¹ Smith, Florence: "Facts About Working Women," Bulletin No. 46 published by The Women's Bureau, U. S. Department of Labor, Washington, D. C.

See: "The Threat of Leisure" by S. B. Cutten, published by The Yale University Press, New Haven, Conn., also "Protection of Women in Industry and Commerce Before and After Childbirth" published in January 1929 by The International Labor Office, Geneva, Switzerland.

depend upon her. *Marriage is sharing*. It makes the participants vital in the life of each other. No servant can act instead of the wife or mother who recognizes the importance and dignity of the work which lies within her sphere. "We can no more halve things and get the sensual good by itself than we can get an inside that shall have no outside, or a light without a shadow."¹ Women cannot hope to get advantages which they desire if they fail to meet their obligations and privileges.

The creation of home and family has been accepted after centuries of experience as the best method of carrying on love between mates, and the best way to develop the life of individuals and the group. Alice Freeman Palmer, President of Wellesley University, said an academic degree is not enough to conduct a home. She advocated education for parenthood, and homemaking, and the artistic use of leisure time.²

A study of what 355 families do and think regarding certain aspects of family life was made recently.³ The homemakers are alumnae or

¹ Emerson, Ralph Waldo: in the essay entitled "Compensation," page 63, Everyman's Library, published by Dutton & Co., New York.

² Palmer, Wm. George: "The Life of Alice Freeman Palmer." Scribner's Sons, New York.

³ "A Study of Home Management in Its Relation to Child Development," by Ruth Linquist, printed in the 1929 joint issue of the Candle of Phi Upsilon Omicron, Vol. xv, No. 1 and Omicron Nu Magazine, Vol. ix, No. 2.

See also: "For What Do we Live," by Edward Howard Griggs, published by The Orchard Hill Press,

members of the two oldest national fraternities in the field of home economics. They are above the average in scholarship and have desirable traits of personality.

Many of the women who were interviewed said that they had always wanted a home and children and that work before marriage was merely a stop-over and not a destination. In most of the homes studied, democracy with its accompanying opportunities and challenges have taken the place of the patriarchal type of family life. The statement of one mother is fairly representative of the group: "We have wanted our home to be a house of friendliness in which might be found liberty based on few rules, high standards, equality without patronage, fellowship, repose and happiness."

Another mother aims to make the home run so smoothly that everyone in it may enjoy a spirit of peace and serenity sufficiently free from friction and worry to be able to develop physically, mentally, and spiritually. Another mother's aim is: "To keep life simple; to maintain a home-like atmosphere; to live within our means, contract no debts, and be as free of financial worries as possible; to extend simple hospitality of a special kind to such an extent that our home acquires a reputation for this among our friends."

New York. "What Price Baby-Tending" by Avis D. Carlson in the July, 1930 issue of *The North American Review*.

This study brings out the fact that good management of the income, the time, the energies, and traits of each member in the home, and the use of the community resources determines success in rearing happy and useful citizens. The women quoted have a large measure of satisfaction. They state that any career to which wifedom and motherhood must be sacrificed is without comparable rewards. They also recognize that *adults in the family may control their own lives less well because they lack the companionship, the understanding and the security which children and a home may give.* It is possible to stay happy while enduring privations and hardships. The mother who is intelligent will see the glory of her adventures *in the home.*

“Blessed are they who find poetry in women’s hands, and in the love which scrubs, brushes, polishes, washes, mends, sews, darns, cooks, adorns, plans, suffers, aches, hopes, believes, waits, yearns, serves, and makes ends meet and tires not so long as strength holds out.”¹

Miss Juliet Lita Bane, recent President of the American Home Economics Association summarized the aims of the best homemakers. “Have the home economically sound; mechanically convenient; physically healthful; morally wholesome; mentally stimulating; artistically satisfying; socially responsible; and spiritually inspiring.”

¹ Gould, F. J.: in “The Canadian Mother’s Book,” by Helen MacMurchy, published by Department of Pensions and National Health, Ottawa, Canada.



Fig. 5. Joey and his happy mother. Even though successful in her profession prior to her marriage this college woman finds complete happiness in home and children. Prize winners in a perambulator parade, Lakeview, Hempstead, Long Island.

CHAPTER IV

PLANNING FOR THE BABY'S ARRIVAL

The normal woman will need only simple care during pregnancy, but she must practice every detail which the doctor recommends. He will examine her urine, take blood-pressure, count pulse, and give advice which may prevent complications. The mother should observe herself and report to the doctor frequently even though she seems normal. If dangerous symptoms are not diagnosed early, at a time when they may be remedied easily, it may be impossible to have the mother and her baby healthy later in pregnancy.¹ The mother should learn what she must do so as to make her body an efficient agent for her child's development. Adequate diet, regular rest, and sunshine for the mother will do much to promote the child's growth before birth. Milk, equivalent to a quart daily, must be taken regularly to prevent faulty dentition, cleft palate, and other abnormalities which may develop if the mother's intake of lime is not adequate during pregnancy. Iodine, under the direction of a doctor, may prevent goiter.

A woman may maintain good health on a diet upon which she cannot properly nourish a baby

¹ Goodman, Sylvester: "Prenatal Care" in *The American Journal of Obstetrics and Diseases of Women and Children*, Vol. lxxx, No. 6, 1919.

during pregnancy.¹ She must therefore eat the foods necessary for her health, and she must also consider the unborn child's needs. *Foods essential as a part of the daily diet in pregnancy:* 1 quart of milk; 1 egg; 1 raw vegetable salad such as lettuce, celery, etc.; 1 citrus fruit or tomato; 1 raw or cooked green vegetable; 2 slices of whole wheat or graham bread, or 1½ ounces of whole grain cereal. Add one helping of lean meat, potato, and three servings of butter. More fruits and vegetables may be taken.² It is important to drink pure water between meals.

Special Care of the Mother.—The condition of the new born infant will indicate the nature of the care given to the mother prior to delivery.³ She actually has her child before she holds him in her arms. Parents who would not neglect their baby after birth may be careless during the first few months of pregnancy. The doctor is

¹ Mendenhall, Dorothy Reed: "Preventive Feeding for Mothers & Infants," in the *Journal of Home Economics*, Vol. xvi, No. 10, October 1924.

² See the article entitled: "The Mother's Diet" in the book: "Food, Health, Vitamins" by E. H. A. Plimmer and Violet G. Plimmer, published by Longmans, Green & Co., New York, 1929. Also: "Studies of Vitamin C in Fresh and Canned Tomatoes" by Bertha Clow and Abby L. Morlatt, published by U. S. Department of Agriculture.

³ "The Conquest of Death at Birth, Childbirth and Civilization." Chapter I in the book, entitled "Devils, Drugs and Doctors, the Story of the Science of Healing from Medicine Man to Doctor" by Howard W. Haggard, published by Harper Brothers, 1929.

the only person who can advise the routine which is best suited to the individual mother and her child. *It is most important to have a doctor throughout pregnancy.* Scientific care will safeguard the mother and the baby.



Fig. 6.—Clark Lee Clemens. One hundred per cent baby, has a sunny disposition. His mother, student in the Ohio State University, took sunbaths during pregnancy.

Creation.—A new life begins with the union of the egg cells of the mother and the sperm cells of the father. In order to understand this process, every girl should know the plan of her sex organs. The outer opening leads to a tube

which is known as the vagina, and the vagina connects with a small hollow organ which is called the womb or uterus, where the unborn child develops. A tube grows from each side of the uterus, connecting it with the ovaries. They contain egg cells or ova, which were formed before the mother was born. Periodically, an egg cell leaves the ovary and travels down the connecting tube toward the uterus. If it does not meet the male or sperm cell, it passes out through the uterus and the vagina.

The sperm cells are made and stored in the sex glands of the father. When sperm cells are placed in the vagina by the father, they move up through the vagina and the uterus to meet the egg cell. If these cells meet, the two unite. The new cell, which is part father and part mother, attaches itself to the inside of the uterus, and grows into an infant. After nine months, the infant comes down through the vagina to the outer world.

*It Has Been Demonstrated beyond Doubt That Sunlight Influences Pregnancy.*¹—Regular sunbaths will energize the mother and affect the unborn child for good. The benefits derived from sunbaths are usually in direct proportion to the mother's ability to tan. Patients who tan deeply gain most. The sun, however,

¹Luckiesh, M. and Pacini, A. J.: "Light and the Skeleton," Chapter VII in the book entitled "Light and Health" published by Williams & Wilkins Co., Baltimore, Md. "Sunlight for Babies" folder No. 5, published 1926, U. S. Children's Bureau, Dept. of Labor, Washington, D. C.

brings physical and mental benefits to all patients. Those who were depressed before exposure tend to grow happier in the sun. *Arrange the home so that each member of the household can have sunbaths; but be certain to take the expectant mother into the sunshine.* Expose larger areas of the body gradually, and finally expose the whole body, both front and back. The doctor, and the local public health nurse, will give advice to prevent injuries which may result from inadequate care during exposure to the sun. Sunshine under a canopy is also effective but less so than direct sunlight. Before and after the noon hours are the best times for exposure.

Complications and Remedies.—Many cases of pregnancy have what is known as “morning sickness”—the tendency to vomit upon rising in the morning. This disturbance may be prevented by feeding the patient black, unsweetened coffee, and dry, unbuttered toast or rusk *before* she arises.

Constipation Must Be Avoided.—The following recipe does not call for cooking. The product is a pleasant laxative.¹

Senna with Prunes and Figs.—Take a pound of dried figs and a pound of dried prunes, wash well. Soak until soft. Remove the stones from the prunes. Then put both fruits through a meat chopper. Add 2 ounces of finely

¹ West, Mrs. Max: “Prenatal Care” published by United States Children’s Bureau, Department of Labor, Washington, D. C.

powdered senna leaves. Stir into this mixture 2 tablespoonfuls of molasses to bind it together. Begin by eating an amount equal to the size of an almond. Increase the amount if the smaller portion does not prevent constipation.

Bloodvessels in the Leg Often Swell during Pregnancy.—Sit or lie down when suffering from this trouble, and elevate the feet. Comfort may be obtained by raising the feet above the head (the right-angle position) and by bandaging the legs. Use bias strips of muslin about 3 inches wide and measuring 8 yards in length. Bandage the legs before rising; begin at the toes, leave the heel uncovered, and carry the bandage round and round the leg well over the knees. The doctor or the nurse will demonstrate bandaging. Elevating the hips, the Sims' position, may relieve varicose veins in the vulva. (Fig. 7.)

Every Pregnant Woman Will Sense the Baby's Movements.—Observations will reveal the child's growth. He may have hiccoughs, and suck his thumb. He will have periods of rest and activity. At the beginning the fertilized human ovum is about $\frac{1}{25}$ inch in diameter—about the size of a pinhead, scarcely visible to the naked eye.¹ In eight weeks it increases to the size of a hen's egg; the child is nearly formed, and is about 2 to 3 inches long. It is suspended in fluid, and attached to the mother by a "cord" composed of blood vessels. This connects with

¹ Prentiss, Charles W. and Arey, Leslie Brainerd: "A Laboratory Manual and Textbook of Embryology," published by W. B. Saunders Co., 1920.

RIGHT-ANGLE POSITION

Patients are taught to take these positions for from two to five minutes at first, increasing the time as they can with comfort.

ELEVATED SIMS POSITION

Fig. 7.—Courtesy of the Maternity Center Association. (See p. 21 in the booklet: "Routines for Maternity Nursing and Briefs for Mothers Club Talks," published by The Maternity Center Association, 578 Madison Ave., New York City, 1929.)

the placenta, a large mass of blood vessels and tissues, which adheres to the inside of the mother's womb.

Infants may live if born as early as the seventh month of pregnancy. However, the majority of those who are born before the eighth month die soon after birth. The normal infant is about 16 inches long, and usually weighs about four pounds at the end of the eighth month. The doctor can usually predict the day of birth, and may estimate the child's condition by studying its intra-uterine life. By measuring the bony parts of the mother's pelvis with a pelvimeter, he may ascertain whether the baby can pass through the vagina safely. In *extreme cases of disproportion the baby may be delivered through an incision made in the mother's abdomen*. Employ a most competent surgeon for this, the Cesarean operation.

Characteristics of the Unborn Child.—The infant does not inhale or exhale prior to birth. Food prepared for assimilation, also oxygen and water, pass from the mother through the placenta and the cord into the child. Waste products return from the child through the cord into the mother through the placenta, and are eliminated by her. Therefore, avoid faulty elimination in the mother.¹

¹ See: Gesell, Arnold: "Infancy and Human Growth and The Mental Growth of the Pre-school Child," published by Macmillan Company. "Metabolism and Growth from Birth to Puberty," F. C. Benedict and F. B. Talbot, The Carnegie Institute, Washington, D. C.,

The Doctor Should Decide Whether the Mother Ought to Go to the Hospital for the Baby's Birth.—Have all plans made for the delivery before the seventh month of pregnancy. Study principles of hygiene when making the baby's outfit. Have all articles in the layette, including diapers, washed before using them. The doctor and the local health nurse will show samples of required articles and will give directions regarding the preparations which are necessary for the mother and the baby.

Consider Naming the Baby.—Doctors and midwives are required to register promptly the births which they attended. If parents have not a name for the baby when the attendant fills out the standard birth certificate¹ a supplemental report with the child's given name must be sent later. Sometimes parents procrastinate, so records may remain incomplete. Consider appropriate names before the delivery so as to avoid postponement of naming the baby. Prevent the troubles which come with having to make additions to the original record of the child's birth.

Recognize the Child as an Individual as Soon as He Is Born.—Distinguish him from everyone else by giving him a name which is free from the reputation established by another person.

publication No. 302. "Child Care, Prenatal Care" by Mrs. Max West, published by the U. S. Children's Bureau, Washington, D. C.

¹ See illustration showing standard birth certificate.

MARGIN RESERVED FOR BINDING

WRITE PLAINLY WITH UNFADING INK—THIS IS A PERMANENT RECORD

N. B.—In case of more than one child at a birth, a SEPARATE RETURN must be made for each, and the number of each, in order of birth, stated.

DEPARTMENT OF COMMERCE—BUREAU OF THE CENSUS

STANDARD CERTIFICATE OF BIRTH

State File No. _____

Registered No. _____

1. PLACE OF BIRTH—

County _____ State _____

Township _____ or Village _____

City _____ No. _____ St. _____ Ward _____
(If birth occurred in a hospital or institution, give its NAME instead of street and number)

2. Full name of child _____

(If child is not yet named, make supplemental report, as directed)

3. Sex of child	To be answered ONLY in event of plural births.	4. Twin, triplet or other	5. Legitimate?	6. Date of birth	7. Date of birth (Month, day, year)
8. FATHER Full name		14. MOTHER Full maiden name			
9. Residence (Usual place of abode) If nonresident, give place and State		15. Residence (Usual place of abode) If nonresident, give place and State			
10. Color or race	11. Age at last birthday (Years)		16. Color or race	17. Age at last birthday (Years)	
12. Birthplace (city or place) (State or country)		18. Birthplace (city or place) (State or country)			
13. Occupation Nature of Industry		19. Occupation Nature of Industry			
20. Number of children of this mother (Taken as of time of birth of child herein certified and including this child.)		(a) Born alive and now living _____ (b) Born alive but now dead _____ (c) Stillborn _____			

CERTIFICATE OF ATTENDING PHYSICIAN OR MIDWIFE*

I hereby certify that I attended the birth of this child, who was _____ at _____ m. on the date above stated.
(Born alive or stillborn)

*When there was no attending physician or midwife, then the father, householder, etc., should make this return. A stillborn child is one that neither breathes nor shows other evidence of life after birth.

Signature _____

(Physician or Midwife)

Given name added from
a supplemental report _____
(Month, day, year)

Address _____

Filed _____, 19 _____

c11-7117

Registrar.

Registrar

Fig. 8.

He has the right to a name which particularizes him, one which will be associated with his own characteristics and achievements. Confusion comes with not having a title by which he may be designated and known personally. When given the name of another person the child may be unable to separate himself from the associations which are connected with the individual for whom he was named. He may feel obliged to act like another person. Frequently parents give the child the name of a deceased progenitor with the hope that the child will resemble that person.

It is not possible to predict the characteristics which the child will later possess. Hence it is folly to think that the baby's name must express some appropriate quality or relation with which the parents hope to connect him. Do not expect the child to carry the name of another person in order to please the individual who bears that name. Give him a chance to glorify his own name.

The writer has enrolled many university students, and has heard innumerable apologies for queer names. Nicknames are given frequently to children who are loaded with names which are too long, or too difficult to pronounce. With many pleasing short names to choose from, it seems easy to avoid conglomerations which may be embarrassing. *The baby will grow up; think of the future.* He will not want the name of another person. He will not want a name which may handicap him.

The Layette.—Buy simple things for the new born baby. Since he will spend most of his time in bed, have his garments of the bed, or night clothes variety. Avoid anything that may irritate the skin and so cause discomfort and fretfulness. *Avoid using wool next to the skin.* During the first few weeks of life only 3 articles are necessary: a cottonlisle shirt (number two), a stockinette slip, and a diaper. Warmth is furnished by wrapping woolen blankets about the baby, by controlling the temperature of the room, and by having a hot water bottle or an electric pad under the bedding in the foot-end of the crib.

Use Bird's Eye Cotton for Diapers.—Have each 20, 22 or 24 inches square; 48 diapers will not be too many for the first months. "Fold them in the triangular way to avoid keeping the legs too far apart."¹ This method requires only one safety pin and leaves several folds of material over the orifices. When the diaper is folded as a rectangle and brought between the baby's legs to meet the shirt, 2 or 4 safety pins are necessary to keep it secure. These are placed near the hips and on the thighs. They may cause discomfort while the baby is on his side, with the use of 2 or 4 safety pins, instead of one, there are more opportunities for accidents.

¹ Rogers, Andrews, M. D.: Professor of Obstetrics, Ohio State University, College of Medicine, Columbus, Ohio, a letter to the writer.

Even though there are many arguments for using the diaper folded as a triangle, there are also *noteworthy arguments for using it as a rectangle or oblong*. This mode appears more comfortable. It prevents having a bunch of material, all of the ends, between the legs and over the excretory organs and genitals. Moreover, this method makes washing easy. The diaper is usually soiled in one place only—the center; whereas the corners and hem remains unsoiled. Consult the doctor and the local public nurse regarding the more desirable technique. Practice putting diapers on a doll and a baby. Notice infants who are wearing diapers folded as a triangle, and others wearing the rectangle diaper before deciding upon a method for regular use.

Avoid Using Rubber Pants.—A small diaper, covered with a larger one, will usually be sufficient to keep the clothes dry provided the diapers are changed often. Rubber pants may be necessary when traveling, but do not use them continuously. They are hot, and cause restlessness and chafing. Absorbent cloth pants may be put over the diaper so as to keep the moisture from penetrating through garments, and to keep the baby comfortable while he is wet during the night. The mother and the baby need to sleep without interruptions. Therefore do not make changes during the night.

Keep the Diaper under the Shirt.—Attach stockings to the diaper or the absorbent pants.

Use fasteners made of webbing with clips, or supporters which are purchasable for 10¢ a pair. Avoid garters. Keep an absorbent pad, or a folded cloth, between the gown and the diaper. Arrange blankets carefully to prevent exposure. Use large safety pins (4 inches long) to prevent exposure. Cover-guards may be purchased in department stores. They consist of elastic webbing which can be readily fastened



Fig. 9.—Soak used diapers in an enamel pail. Keep covered until washing thoroughly.

to the sides of the bed near the head end, and attachments which clutch the covers and keep them in place.

Care of Diapers.—During the day, change diapers as they are soiled. Most infants will need about 10 diapers between 6 A. M. and 6 P. M. Remove the solid fecal matter as soon as possible. Rinse the diaper in cold water in a clean toilet bowl, a bucket, or a chamber. Do not use the bowl intended for washing the face

and hands, or the laundry tub, for this purpose. After rinsing, soak the diapers in a covered enamel pail until they are washed thoroughly. Keep the pail in a convenient place. Use borax solution for soaking, 1 teaspoonful to a quart of water—make a fresh solution daily.

Washing Diapers.—Wring out the borax solution, and then use soap and hot water freely. After the diapers are absolutely clean, rinse them several times. Boil for ten minutes or longer, rinse again and dry the diapers in the sun. Do not iron after sunning them. It is most important to cleanse and rinse diapers very thoroughly. Any trace of soap or excretion will cause irritation.

The Baby's First Bed.—Use a painted basket which is not too deep, nor too large (Fig. 10). Have it large enough to permit exercise, and deep enough to be safe. A basket of the following dimensions is practical; length 28 inches, depth 12 inches, width 16 inches. If the basket is shorter an average sized baby will find it difficult to stretch. If it is narrower, the child may find it impossible to move his arms without thrusting his hands against the sides of the basket. Choose a basket having handles at each end. Avoid the type which has a handle or handles extending from side to side. This variety may cause eye-strain; since the arch made by the handle obstructs the child's field of vision. Paint the basket used for summer a dark blue, dark green, or brown, so as to prevent glare which would come from sunshine on white

paint. Prevent sucking or gnawing the paint on the basket, as lead poisoning has occurred in babies from such practice.



Fig. 10.—Baby's first bed.

Furnish the Proper Type of Mattress.—The newly born baby cannot change his position. Therefore, use a mattress which has a soft and springy surface. Do not have it as soft as to allow him to sink in too deeply, but avoid the discomforts which come with having to lie on a

hard surface. The best mattresses are made of horsehair; very good ones may be made from felt, nonabsorbent cotton, mineral wool, or vegetable fiber.

Mattress protectors can be made from quilted pads, rubber sheating or oil cloth. Paper, covered with muslin or other tightly woven material, may also be used. Always cover rubber or oil cloth to prevent irritation.



Fig. 11.—Basket for articles recommended in jingle.

Do Not Put a Pillow under the Baby's Head.—His spine is cartilage and he should therefore lie on a flat surface until ossification has been perfected. Place a pillow at the head end of the basket so as to prevent injury when the baby squirms upward. Use soft sheets and washable blankets, and washable, light-weight spreads.

Learn How to Take Care of Infants before Having a Child.—Health centers and county

public health nurses are numerous, and they will give the education which every man and woman ought to possess before he or she must care for an infant.

This jingle includes a list of the smaller articles which should be purchased before the baby comes. They may all be put into a basket (Fig. 11) in which the mother can keep these things.

Cotton:

For cleansing nose, and ears, and eyes,
You soon will find it quite a prize.

Tooth Picks:

Though barred in high society
For use upon the tooth,
With cotton in the nursery
Will clean the nose of youth.

Boric Acid:

With water boiled then cooled;
Used by nurses wisely schooled;
A teaspoonful of powder in 1 pint of water clear
Then for germs you need not fear.

Safety Pins:

Are made to hang
In very tidy links;
A frilly cushion might have germs;—
So the nurse now thinks.

Thermometer:

Until it climbs to ninety-nine
No bath can be classed as fine
To measure baby's body's state;
Between ninety-nine and ninety-eight.

Soap:

No fancy perfumed toilet soap
You'd use upon your babe, I hope
Castile or Ivory the doctors say
Will help the skin, and keep babe gay.

Gauze:

No sponge is e're so free from flaws
And germs as is sterile gauze;
So make it into washrags fine,
With which to scrub the "Baby Mine."

Olive Oil:

Olive oil clean and bland
Will make the skin firm and grand
If applied before his first bath we're told,
And put on daily until nine days old.

Nursing Bottle:

Give boiled water (in bottle) clean and pure
Then he will sleep and stay secure.

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CHAPTER V

THE NATAL PERIOD. NEO-NATAL CARE OF THE NORMAL BABY. INFANCY

THE character of the natal period, the period during which the child is born, will vary according to the type of pregnancy and the quality of service rendered during the delivery.

The child's birth occurs about nine months after conception. The mother's vagina is stretched as the baby is born. The intermittent contractions of her uterus, known as "labor pains," begin naturally in normal cases. The baby's head comes first, then the shoulders and the body. The placenta is forced out after the child has been delivered.¹

The infant is not a miniature adult; he is an unfinished product, and many changes take place at birth. A study of the characteristics of the new born child may help to understand his frailties and his needs. His stomach can hold but 1 ounce of fluid. His pulse rate is about 120-140, and respirations are from 30-40 per minute. Prevent moving and handling

¹ The placenta is an organ through which communication between mother and the unborn child is accomplished. One of its surfaces is attached to the wall of the uterus; the umbilical cord from the child is attached near the middle of the other surface and leads to the child's navel and to its internal organs, chiefly the liver.

him more than necessary during the first hours after the delivery. Place him on his right side and leave him undisturbed until he has learned to breathe. At birth the baby's head measures about 13.9 inches in circumference and has two openings (fontanelles) in the skull. The larger, the anterior fontanelle, is just above the forehead at the junction of the two frontal and parietal bones. This closes about the end of the first year. The smaller or posterior fontanelle is backward in the middle line between the edges of the occipital and parietal bones. This closes about the end of the eighth week. Twenty teeth are completely formed under the gums, and a second set, the permanent teeth, are nearly formed at birth.

At birth the infant's temperature is about 98 or 99 F. but the heat regulating center in his brain acts imperfectly. Consequently, his temperature is easily altered by external conditions. He may be burned without indicating discomfort.

The eardrum is collapsed at birth and hearing is not established until the middle ear is filled with air. This takes place as respiration becomes normal, usually by the end of the first day. Tests show that there are two things the newborn infant is afraid of, and only two; loud, sharp sounds, and situations in which his support or balance is suddenly disturbed. "The one situation which from birth will call out the response of rage is interference with the infant's activity. Holding the head, legs,

or trunk (even when held gently but firmly) will almost invariably enrage the child.”¹

Care at Birth.—Wipe the baby’s face, and cleanse eyes, nose, and mouth. Use bits of sterile cotton soaked in warm normal salt solution,² for the eyes, using a separate piece of cotton for each eye. Wipe toward the temples so as to prevent pushing waste material into the duct which goes from each eye to the nose. Cleanse the nose with swabs (twisted cotton on or without toothpick) using a swab for each nostril. Wipe the mouth with sterile gauze. *The doctor will drop a disinfectant, usually Nitrate of Silver, into the baby’s eyes; and it is most desirable to have him do so, regardless of the conditions under which the child was born.*

The doctor will tie the umbilical cord and cut it so as to separate the baby from the placenta before the placenta is expelled. Most doctors use $\frac{1}{4}$ inch linen tape, tying it about $\frac{1}{2}$ inch from the baby’s abdomen. The cut through the cord is made about $\frac{1}{4}$ inch beyond the tie. The doctor will apply tincture of iodine or another disinfectant, to the end of the stump, and treat it as an open wound. Keep it covered with a sterile gauze dressing and hold it in place with adhesive tape.

¹ Watson, John B.: “Psychological Care of Infant and Child,” pages 26, 27, and 34, published by W. W. Norton & Co., New York, 1928.

² Make normal salt solution by adding 1 teaspoonful of clean salt to 1 pint of boiled water. This resembles the natural fluids which are in the eye, the nose, and other orifices of the body.

Care of the Mother.—Do not turn the mother until three hours after the delivery, then prop her with pillows after turning. Permit her to turn herself after the first day. Give fluid diet until the bowels have moved. Induce bowel movements the second day after delivery; if necessary, give magnesium citrate, castor oil, cascara, etc.—as the doctor orders. Give a simple enema if the drug is not effective. Give light diet after the bowels move; serve oranges, but no other uncooked fruit, during the first ten days; cooked or baked fruits may be eaten freely.

Be Concerned about Evacuations from Bowels.—Give an enema, or a drug, each day on which the bowels did not move. Cleanse the rectal and vaginal region thoroughly with soap and sterile water each morning. It is best to spray these parts with sterile water each time the bed pan has been used. Bathe the mother (in bed) daily during her confinement. Observe her closely; note temperature and the character of the discharge from the vagina. Report her condition to the doctor daily.

If stitches have been taken, keep the skin about the stitches clean and as dry as possible. If the mother was not torn, she may sit up in bed on the tenth day, get out of bed on the twelfth, walk on the thirteenth, and may bathe her baby on the fourteenth day—subject to the doctor's orders.

Care of the Baby.—Apply olive oil, mazola, alboline, or another bland grease as vaseline

to the baby's body soon after birth so as to loosen the substance (vernix caseosa) which coats the baby's skin during pre-natal life. A cleansing sponge bath with water may be given several hours after the grease has been applied. Do not use water prior to greasing the skin. It is usually beneficial to follow the use of water with applications of oil during the first month. Do not give tub baths before the navel is healed. The stump of the cord usually drops from the baby's abdomen during the second week after birth.

Put the baby to the mother's breast about six hours after birth and encourage nursing regularly. In the beginning he will not get milk, but he will obtain a fluid rich in fats (colostrum) which affects his bowels. Moreover, the breast glands will be stimulated as the baby sucks. The secretion of milk is usually according to the amount of sucking. Cleanse the mother's nipples with soap and water. Rinse, dry, and apply liquid alboline several times each day. Apply 4 per cent boracic solution,¹ and rinse the nipples with sterile water before each nursing. Touch sore nipples with a mixture: equal parts of glycerine and witch hazel, or castor oil containing bismuth, or other prescriptions as the doctor directs. *Nurse the baby as the doctor orders.* Do not nurse him

¹ To make 4 per cent boracic acid solution: Add 1 teaspoonful of powdered boracic (boric) acid to 1 pint of boiling water. Strain the solution, drop it through gauze after all the powder has been dissolved.

every time he cries. Do not permit him to hold his nose too close to the breast. It will be impossible for him to breathe properly if his nostrils are obstructed. Keep his nose clean, and make slight pressure on the breast above his nostrils so that the baby will not find breathing difficult. If the mother's nipples are sensitive, and hurt during nursing, have her lie down while the baby sucks, and place the baby with feet toward the mother's shoulder during the nursing period. The baby will be satisfied in this position and the mother will be more comfortable while the pull on the nipple is from below.

After the nursling has taken all he should, hold him in a vertical position to facilitate deep breathing and the expulsion of gas. Support his head and back until he is old enough to hold himself erect. Do not breathe into the baby's face. (Fig. 12.) Handle him very gently after feeding him. As soon as he appears comfortable, lay him on his right side and leave him alone.

If the baby does not urinate during the first day, seat him in a shallow basin of warm water for about a minute. Support his back, and keep his body covered while giving him this treatment. He may be in need of circumcision. Consult the doctor.

Give water from a tiny spoon about the third hour after birth, and then develop the habit of taking water from a nursing bottle, according to the doctor's orders. Water is usually given freely during the summer but it is given

seldom during the first winter. It dilutes the gastric juices, and sometimes decreases the appetite of very young infants.

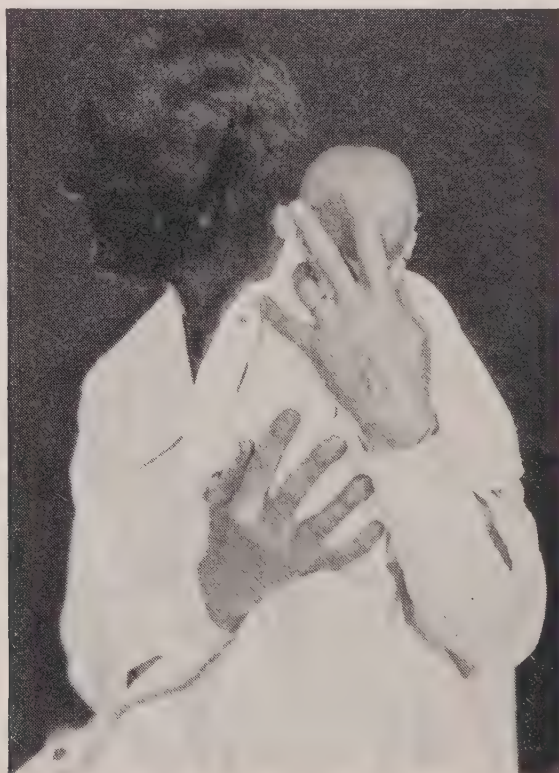


Fig. 12.—Do not breathe onto the baby. Turn the face away while holding him in the vertical position. Support his head and back.

Give a Tub Bath Daily after the Navel Is Healed.—The articles required for the bath are: table, covered with a pad; small piece of rubber sheeting, and toilet tray,¹ a newspaper

¹ The ideal toilet tray holds 5 glass jars properly washed and boiled; one contains cotton balls or squares; one clean boiled water; another albolene or mineral oil; another swabs (cotton twisted on, or without toothpicks); and another small cloths or pieces of gauze.

or bag for waste; baby's clean clothing, a face towel, a wash cloth, and a foot-tub one-half full of water at 98 F.; unscented soap, and a small bath blanket.



Fig. 13.—Lift baby into tub for rinsing. (Courtesy Mrs. Clarence Kennedy.)

Procedure.—Never leave the baby alone on the table. Undress him and cover him with a bath blanket. Wash, rinse, and dry the face, head, neck and ears. Cleanse the area about the sex organs carefully. Use cotton for this

purpose. Boy babies who have not been circumcised need special attention. Push back the foreskin, and cleanse the underlying tissues. Cleanse the vaginal region of girl babies thoroughly but gently. Wash the body and lift the baby into tub for rinsing. *To lift* the baby place a hand under the head and shoulders, grasp the legs with the other hand. Loosen

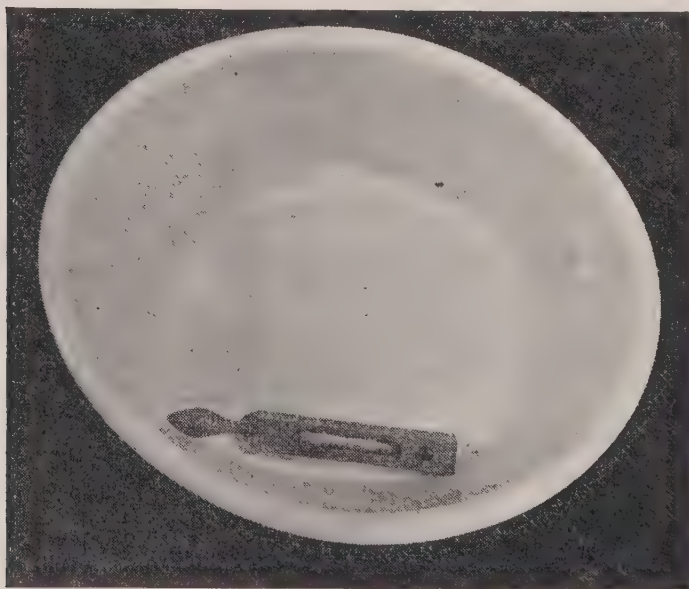


Fig. 14.—Use shallow enamel tub having a flaring edge for baths during the first six months.

this hand when the child is in the water. Keep the one hand under his head and shoulders and rinse the body with the free hand. *Do not put his head under water.* Lift the child from the tub onto the bath towel. Protect with the bath blanket and dry him under cover. *Be sure to dry the body thoroughly.* Be most careful of areas between the toes and fingers; the groins, and axillae. Many doctors forbid using powders

on infants. If the use of powder is endorsed by the doctor, be careful to prevent getting it into the child's eyes, nose, mouth, and urethra. Beware lest zinc powders be inhaled. Pneumonia may follow if this happens.

A healthy infant's mouth needs no treatment other than clean water to drink.¹ Ask the doctor regarding the amount of water required



Fig. 15.—Collapsible tubs made of rubber sheeting are also satisfactory. When handled properly, the baby will enjoy his bath without the addition of toys.

daily. The baby's teeth are all beneath the gums at birth.² The roots are not entirely formed, but the crowns are formed and waiting for the time when the child will be developed enough to use them. Then the roots will develop and the crowns will push through the gums.

¹ "Handbook of Standard Methods," published by Division of Maternity, Infancy, and Child Hygiene, New York State Dept. of Health, Albany, N. Y., 1929.

² "The Baby's Teeth" printed in Health News, April 15, 1930, by U. S. Public Health Service, Washington, D. C.

This usually occurs about the sixth to eighth month after birth. Most normal children have 10 or 12 teeth when one year old. *Use a tooth brush as soon as the teeth are apparent.*

Healthy eyes need no special treatment after being disinfected and cleansed at birth. *Get the doctor's advice immediately for any inflammation or discharge.* The eyes of the newly born baby are readily infected. Blindness, and impaired sight, may result from inflammation of the eyes.

Keep the room warm and free from drafts while bathing the baby, but prevent over-heating it. As the child grows older the time spent in the tub may be prolonged, *but always use the water in the tub for rinsing*, not for lathering the body. Do not clutter the bath water with celluloid toys. These may make the child too reluctant to leave the bath tub. Moreover, he will not be attentive to instructions which pertain to his bath. *It is important to teach each child to care for himself at the earliest possible moment.*

The Neo-natal Period Is the First Month of Life after Birth.—It is also called “early infancy.” During this period the child is influenced by causes which acted upon him before and during birth. Babies are born with immunity which enables them to resist most of the infectious diseases during the first month of life. After this period they become gradually subject to the same conditions which cause diseases in older children. Immunize as soon as the doctor

advises to do so against diseases which can be prevented: Smallpox, typhoid fever, diphtheria, and possibly scarlet fever.

The First Concern of Parents Should Be to Make Certain That the Baby's Birth Has Been Registered Correctly.—Registration will prove the child's citizenship, his right to go to school, to have a work certificate and hold office. It will also prove his right to inherit property and secure passports, and may be required to obtain other rights. It will never be easier to get a copy of the child's birth certificate than it will be during the first year of his life. Apply to the Health Officer or to the Clerk of the County Court in the county in which the baby was born.

Maintain an Environment Which Will Promote Maximum Mental and Physical Growth.—Give the baby a room of his own as soon as he is born if it is possible to do so. By all means supply a bed for his exclusive use. Harm may come from sleeping with another person during childhood, whereas, poise and self-reliance develop more readily while having a room of one's own. *Much depends upon conditions found in the nursery.* Have everything that is necessary for the child, but do not surround him with useless objects. Do not surfeit him with things and attentions. Keep his environment hygienic and as beautiful as it can be made. Consider the view from the windows. Eliminate or conceal ugliness. Afford the opportunity to see the sky, trees, birds, and flowers daily.

Prevent useless noises. Develop tolerance for noises which are inevitable. Do not curtail the natural activities of other members in the household for the baby's benefit, rather teach the baby how he may fit into the home in which he finds himself.

A thermometer which will register accurately the temperature of the room is necessary when considering the atmosphere of the nursery. Maintain 68 F. by day, and from 50 to 60 F. by night. Infants thrive best when brought up in air which is this temperature. Avoid drafts and do not keep the nursery colder than 50 F. Do not depend upon the sensations of adults to ascertain whether the room is warm or cool as it should be. It may really be hotter or colder than it seems. Consult the thermometer frequently. High temperature (higher than 68 F.) and lack of air movement make it difficult for the baby to throw off heat. The young infant cannot regulate his body temperature; improper ventilation frequently causes perspiration, restlessness, and illness.

Do Not Clean the Nursery While the Baby Is in the Room.—Frequently children cry while their rooms are being cleaned. Their crying may be attributed to irritation due to dust in the respiratory system. Cleanse the child's nose if he has been exposed to dust or lint. Inject liquid albolene into each nostril with a medicine dropper. The baby will swallow the oil as it passes from the nose to his throat.

The oil will sooth the irritated membrane, and he will be more comfortable.

Keep the baby out of doors from morning until night during the summer and milder Autumn months. Take him out for one or two hours each pleasant day during the winter. Be sure to protect the baby's eyes from glare which may come from sunshine on white objects, and the direct rays of the sun. Use a dark cloth to cover white areas while the baby is in the sun. Select material which is easily washed, such a cotton poplin, linen, or silicia cloth, but avoid material with a glossy surface. Darken the area about the baby, but do not cover his body with dark material during the summer. The potent (ultra-violet) rays of the sun, which babies need for growth, do not penetrate dark materials, whereas the hot (infra-red) rays are absorbed and render the clothes hot. *Dress and cover the baby with white or light-colored materials.* These reflect the maximum amount of hot rays. Never use more clothing than is necessary and select loosely woven fabrics. No ultra-violet rays penetrate the usual close-woven clothing, irrespective of color. It is therefore necessary to uncover the entire body of the infant daily. Usually, for the healthy infant, the skin of the face and hands is all that needs to be continuously exposed to sunlight.

Select washable mosquito netting if it is necessary to protect from flies. Keep it clean and prevent having it touch the baby's face. It can be held in place by tying or weighting the corners.

The infant's carriage must have well-balanced springs, rubber tires, and a substantial but resilient mattress to prevent jolts which may cause serious injuries. It is best to have the interior of the carriage covered with dark blue, brown, or other dull dark material which will



Fig. 16.—Heavy English baby carriage, from the book: "The Infant and Young Child," by John Lovett Morse, Edwin T. Wyman and Lewis Webb Hill, published by W. B. Saunders Company, 1929. (Courtesy of Jordon Marsh Co.)

prevent glare. Avoid white. Select a carriage which will permit the child to stretch his legs while he is riding. Have an adjustable top and a storm hood. (Figs. 16, 17.) Use a harness made of webbing, or leather straps, which fit about the baby's shoulders and body and also

fasten to the sides of the carriage to insure safety. Without such a device the child may fall out of the vehicle if he stands up unguarded.

A cart having a foot-rest, adequate back supports, and resilient seat may be used for older children, *but do not use a cart before the*



Fig. 17.—Light wicker baby carriage, from the book: "The Infant and Young Child," by John Lovett Morse, Edwin T. Wyman and Lewis Webb Hill, published by W. B. Saunders Company, 1929. (Courtesy of Jordan Marsh Co.)

first birthday. Rather wait until the baby is more than two years old before using a cart. *Always avoid vehicles which lack well balanced springs.* Avoid having the baby close to the pavement. Dress the child after considering the weather. Note the temperature, the humidity, the winds, the sun; plan for maximum

comfort and health. Prevent perspiration and chilling. Always protect the abdomen. Guard against frosting fingers and toes. Woolen stockings, over cotton ones, and mittens are indispensable in the winter.

The Infant Is Very Sensitive and Reacts Readily to All Outside Forces.—To prevent nervousness, shield him from excitement while he is out of doors. Never subject him to crowds, busy streets, excessive noise, and exhaust gas from automobiles. Wheel his carriage to clean, serene surroundings which are free from harmful influences. The child's carriage is usually at the level of the concentration of carbon monoxide gas from automobiles. Therefore, avoid streets crowded with traffic. The purpose of wheeling him should be to take him to an environment which is more healthful than his home. Plan his excursion out-of-doors for *his* good. Do not lengthen or curtail it to please the person who is accompanying him.

Harm Comes from Insufficient Sleep.—The normal, well-fed baby will sleep about twenty-two hours out of every twenty-four during the first three months of life, and he will sleep a large part of every day and night throughout the first year, provided he is not disturbed or excited. He should sleep alone, without attention. The ability to sleep regularly is a habit which parents and nurses must establish early in the child's life. Adjust window shades or the position of the crib so as to keep the early morning light from the baby's eyes. Wake-

fulness prior to the six o'clock feeding time is frequently caused by strong light.

Avoid Conditions Which Encourage Harmful Habits.—Crying for attention is a common fault of babies as well as of older children. It is often encouraged in the nursery and, consequently, it is a habit of which some addicts are never cured. If a child is picked up and fondled each time he cries, he will soon cry to be picked up. Children have a natural desire for attention. They will do almost anything to get it. Healthy, well-cared for infants have been known to cry the greater part of a night and a day for attention. When they realize that crying is ignored, they grow reconciled to lying awake without attention. "The more one has to do with children," says Bertrand Russell, author of "Education and the Good Life," "the more one learns to leave them alone."

Systematize the Baby's Activities.—A system will guard against growing into irregular and undesirable ways. Moreover, it minimizes the work of the mother and assures time when she and the child are free to enjoy rest and recreation. No one plan can be followed in all homes. Programs for the baby will vary with the doctor's orders and the child's condition. However, the following suggestions, taken from "Baby's Daily Time Card" issued by the Children's Bureau, U. S. Department of Labor, can usually be practiced during the seventh, eighth and ninth month.

- 6 A. M. First feeding. Leave alone in crib to sleep or play.
- 9 A. M. Plain cod liver oil; then orange juice or tomato juice. Permit the baby to kick and play freely a few minutes without clothes.
- 9:30 A. M. Bath.
- 10 A. M. Second feeding.
- 10:30 A. M. Out of doors until next feeding time. Long nap in sun. Drink of water after nap. Play.
- 2 P. M. Third feeding.
- 2:30 P. M. Out-of-doors as season permits. Nap and drink of water after nap. Play.
- 5:15 P. M. Cod liver oil (omit if baby is supposed to have cod liver oil but once a day).
- 5:45 P. M. Play, dressed for the night.
- 6 P. M. Fourth feeding.
- 6:30 P. M. Bed. Lights out and windows open.
- 10 P. M. Fifth feeding? This may be omitted.
Most normal babies sleep without being fed between 6 P. M. and 6 A. M. after the sixth month.

Respond to the Baby's Desire to Play, but Do Not Urge Him to Perform Tricks.—Fatigue and excitement come quickly. Moreover, he is not a plaything. Respect his personality and recognize his rights. Maturation is due largely to factors *within* the child. He may be expected to hold up his head when he is about three to four months of age, sit erect about the sixth month, and to stand alone on his first birthday *without being urged to do so*. During the first few months the baby exercises by kicking, moving his hands and arms, picking up and dropping things, and turning from side to side.

His activities are not coordinated because the muscular and nervous systems are only developing. Do not expect young children to move with accuracy. Never hamper muscles or joints with tight or heavy clothing.

Do Not Allow the Baby to Suck His Fingers for Amusement.—Finger sucking usually develops thick, boggy lips. It also causes the gums and teeth to protrude, and promotes the increase of the adenoid tissue. Offer the baby a smooth rattle and a solid teething ring. He will exercise his hands and arms as he jerks these about for his amusement. Be sure his toys are cleansed frequently, because he will put them into his mouth. “Pacifiers” are harmful, never tolerate them.

To Prevent Finger-sucking.—Bandage the elbows so that the child will be uncomfortable when he puts his fingers into his mouth. Sometimes the hands are moistened with bitter drugs, frequently they are encased in mittens, and other devices used to cage the desired finger or thumb. These, and other contrivances, may prevent finger sucking, but they restrict the child, too, noticeably. A simple and efficacious way to prevent finger-sucking is to wind a 2 inch bandage (in the figure-eight style) about the elbows. Be careful not to make the bandage too tight, but have it sufficiently snug so as to be uncomfortable when he attempts to put his fingers into his mouth. He will discontinue sucking his fingers when he senses discomfort while doing so. Well babies who are fed

regularly with suitable food will usually be content to lie without sucking their fingers. Provide toys for entertainment and exercise. Toys tend to prevent masturbation and finger sucking, and encourage the use of muscles. Give toys which are *unpainted*, simple, and washable, as well as smooth and indestructible. *Avoid small playthings which might be inserted into the mouth or nose.*

The Baby's Daily Routine Should Include Two Periods in Which He Is Partially or Wholly Undressed and Permitted to Kick and Move About with Freedom.—The moments preceding his morning bath, and the period prior to putting him to bed in the evening are usually most desirable for such exercises.

Do Not Allow the Baby to Play on the Floor.—Floors are always dirty, and never free from drafts. Do not expose the infant to hazards which may come from playing on the floor. Put him into a play pen when he begins to move about. *Have the pen built on a platform or with legs* so as to raise it at least 12 inches above the floor.¹ *Do not encourage creeping.* Creeping frequently postpones walking and sometimes causes deformities. Do not use “*walking chairs*,” and other apparatus which tends to prolong natural activity and cause fatigue. Avoid swings and seats from which his legs will

¹ Children are usually more contented in pens which are raised *above* the floor. They seem annoyed with the perspective which they get while they are in pens on the floor.

dangle. *Rest his feet whenever he is in the sitting position.*

Babies Seem to Need Loving and Encouragement Each Day.—However, spare them from personal attention which is too emotional.¹ Avoid making them too affectionate. Persons who pick up or caress an infant should be clean and healthy; their finger nails should be short and rounded. The forehead is the safest place to kiss an infant. Limit the privileges of handling and kissing him to his closest relatives. Teach them not to breathe into his face. Avoid persons with colds. If this is not possible, a gauze mask worn over their nose and mouth may prevent infecting the child.

Do Not Ignore the Infant's Inability to Grow.—When considering his growth, compare the child with his former self, and not with other children. Question how the child has grown during the week, comparing each week with the previous week. It is unreasonable to weigh the normal baby oftener than once a week. The average infant does not usually gain in weight every day. It is significant to have him gaining, more significant than having him weigh much at one time. The healthy infant will gain about 4 ounces each week during the first year. “The curse of life is the inability to grow.”

Inability to gain weight, if the baby is physically normal, may be attributed to irregularity

¹ Watson, John B.: “The Dangers of Too Much Mother Love,” Chapter III in “Psychological Care of Infant and Child.”

in the daily regime, or to improper feeding.¹ Awaken the baby if he is not awake at feeding time. He needs the nourishment for growth, and it is desirable to establish regularity in eating. Hold the infant upright over the shoulder after each meal so as to allow air to escape from the stomach. Then place him in his crib and keep him quiet. If he is fretful during or after his meal determine the cause. Serious disorders may result from rocking, tickling, and tossing children about. This should not be done even though such movements seem to please them.

When Feeding the Baby from a Bottle, Hold the Bottle until All Food Has Been Taken.—Never leave the baby with the nursing bottle propped up to feed him. Tilt the bottle to bring its contents well up over the nipple line so as to prevent the child from swallowing air with his food. *Remove the nipple from the mouth several times so as to allow the air, which may have collected in it, to escape, and to encourage the baby to breathe deeply while being fed.*

Use soft rubber nipples which are reversible. Keep the holes in the nipples large enough to insure a flow on suction, but small enough to prevent a flow when the bottle is inverted. It may be necessary to enlarge the holes with a fine hot needle. Three holes (about the diameter of a No. 3 sewing needle) are most desirable.

¹ See "Baby's Daily Time Card," published by the Children's Bureau in the U. S. Department of Labor, Washington, D. C.

Rinse the bottles and the nipples in cold water, and then in hot water, as soon as they have been used. Keep them filled with water until they are cleansed thoroughly.

To Cleanse Bottles and Nipples Thoroughly.— Rinse with cold water. Then use warm soapy water and a brush, rinse in clear water several times. Put the clean bottles into clean water, heat and boil for at least five minutes. Then pour off the water and cool the bottles before filling with milk mixtures. Stopper them, handling the tops of the stoppers only, and store in a refrigerator which is kept below 50 F. Scrub the rubber nipples and rinse them thoroughly. Boil for two minutes only. Lift them from the water with a small strainer kept for this purpose, place them in a clean jar, keep dry and covered until they are used. Nipples will last longer if they are kept dry.

Get the Formula for the Baby's Feeding from the Doctor.—He will consider the child before prescribing. When consulting him have the child stripped for thorough examination. No doctor can prescribe a formula which meets the needs of the baby without seeing him. Babies may lose weight because their food does not meet their needs. No two babies are alike. The food which agrees with one child may not be tolerated by an apparently comparable child. Important items connected with feeding the baby include consideration of the size of the child's stomach, the preparation, storage and serving of foods; and care of the utensils used in feeding.

At birth the stomach can hold but 1 ounce

At two weeks of age the stomach can hold 2 ounces

At three months the stomach can hold about 4 ounces

At six months the stomach can hold about 6 ounces

At twelve months the stomach can hold about 9 ounces.

It is important to avoid giving more food than the quantity which the baby's stomach will hold. He may be injured by being fed too much. It requires three or more hours to empty the infant's stomach when digestion is normal. Avoid feeding him too frequently.

An ice box can be made as follows:¹ Cover a deep (2 or more feet deep) wooden box with 10 or more thicknesses of newspapers. Place a galvanized pail in the center of the box, and a smaller tin pail in the center of the larger pail. Fill the space between the larger pail and the sides of the box with sand or sawdust. Put ice in the larger pail and bottles of milk in the smaller pail. Cover both pails and put a lid over the entire box.

A "hot-plate," with cover, will simplify keeping the baby's food warm while he is eating. It consists of a china plate fastened into the top of an aluminum pan which can be filled with hot water through a spout in the side. The

¹ "Care of Food in the Home" Farmer's Bulletin No. 1374. "Iceless Refrigerator" Farmers Bulletin No. 927, issued by U. S. Dept. of Agriculture, Washington, D. C.

spout has a screw-top so the water will not cool or spill. The metal hood fits over the plate. (Fig. 18.) With such an arrangement it will be possible to keep food warm even though the child eats slowly. Keep all things used in the preparation of the baby's food separated from other household utensils. Be very particular about keeping every article absolutely clean.

Encourage the baby to drink from a cup, and feed him with a spoon as soon as his teeth



Fig. 18.—Metal cover and hot-plate.

appear. Avoid using metal or enamel cups. They hold the heat, and may burn the lips. Frequently children refuse to drink from cups because they associate discomfort with the use of metal ware.

Advice to Parents.—There are various ways in which to bring up a child. Contradictory opinions are often expressed in present day publications and by persons who are concerned with child welfare. It is difficult to know what to believe while considering suggestions which disagree. *The only safe policy is to obey your own doctor.* Disregard your neighbor's

doctor, and the advice of untrained volunteers who presume to solve your problems. Stay calm; keep physically fit and alert. Too much reading causes fatigue and nervous strain which



Fig. 19.—Ned enjoyed using a cup before he was ten months old.

may harm parents and the baby. Being too concerned over purely scientific principles in technique may react unfavorably on the actual practice of baby tending. Moreover, many books lack valuable information. All authors should not be taken seriously. Consider their training and experience before accepting what they wrote.

CHAPTER VI

EARLY CHILDHOOD: THROUGH THE SECOND YEAR

MANY reactions, both physical and emotional, are developed during the first two years of the child's life. *His health and behavior in later years will be determined by the discipline which he received before his second birthday.* Consider all functions of his body. Training the bowels may be begun as soon as the navel (umbilicus) has healed. Almost every healthy baby, boy or girl, can be trained not to soil diapers after the eighth week of life.

Elimination will occur regularly if the infant is healthy, is fed regularly, and receives sufficient water between feedings. Note the hour at which the bowels are usually emptied. Hold the infant over a pan or vessel at this time day after day, to establish the habit of regularity. Never permit an exception to occur until the habit has been established. Training must be continuous, without a break, in order to make desirable responses automatic.¹ One break in the continuity will undo the effects of the routine. The child will soon associate the act of excreting with the vessel and the posture in which he is held while excreting. There are

¹ James, Williams: "Habit" published by Henry Holt & Co., New York.

various ways in which the infant may be helped to establish the habit of elimination at specific times.



Fig. 20.—Make gentle rotary movements when massaging the abdomen. Push the fingers upward from the lower right side, then across to the left side and downward.

He may be laid on a protected pillow which is placed at the rear end of a bed pan. (Fig. 20.) Extend the protector used to cover the pillow so as to keep the baby from touching the pan. The movement will usually come in a few minutes if the child has been taken up

at the hour which is the time for a natural evacuation. If it does not come after five or ten minutes then insert a cone-shaped piece of softened castile soap (about 2 inches in length and $\frac{1}{4}$ inch in diameter). This will hasten evacuation. Apply vaseline to the rectum before inserting the soap. Glycerine suppositories may be used instead of soap, but they are sometimes irritating.

Habits Are the Result of Repeated Actions.—It is important to repeat procedures which result in desirable reactions. Massaging the abdomen gently when a bowel movement is due may avoid the need of a suppository. The mother's finger nails should be short and rounded so as to prevent scratching. When massaging make gentle rotary movements with the balls of the fingers traveling upwards from the lower right side of the abdomen. Then across to the left side and downward.

Another method (one which is most frequently used) is to place the baby over a small vessel which may be held in the mother's lap while the child's back rests against her arm or chest. (Fig. 21.)

As soon as a child is able to sit up place him on a nursery chair which is over a vessel.¹ It is important to have his feet resting on the floor or on a ledge from which he can push while he is contracting the abdominal muscles. The abdomen must be supported by the upper

¹See: "Training Chair," by The Frank F. Taylor Company, Norwood, Cincinnati, Ohio.

surface of the thighs, and the knees should be higher than the buttocks. Do not be disappointed if a bowel movement is not obtained the first time the baby is put onto the chair. It may take a few days until he learns what he



Fig. 21.

must do to empty the lower bowel. Support the back with a pillow, but do not keep the child on the chair for a long time. If he experiences discomfort he will resent being put into the chair. Teach him to realize that the toilet chair is unlike other chairs. Do not use it for play periods. Provide a seat which slopes

backward so as to put the child in the position which naturally facilitates bowel movements. (Fig. 22.)

Children can soon be taught to grunt or to designate in some other way their need of the nursery chair. If the same word is always said



Fig. 22.—Use nursery chair with the seat sloping backward. Support the baby's spine with a pillow.

to them as they are placed on the chair they will learn to say this word when they need the chair. The writer knows many children under one year of age who call for their nursery chair as they need it. Wash and dry the area about the rectum after each bowel movement.

The Evacuation of the Bowels Is Most Easy for the Runabout Child When He Is Placed on a

Chamber Which Is on the Floor.—Study the anatomy of the child. When he is on a seat built for adults, with stretched legs or dangling legs, he is at a mechanical disadvantage. Place



Fig. 23.—Encourage the runabout child to use the chamber on the floor.

a small vessel on the floor against the wall. He can rest his back, and flex his knees while using it. In selecting the vessel choose one which has a flaring edge. One with a sharp edge which does not flare, may feel uncomfortable. A small seat which fits over the regular large bathroom seat and designed with

a back rest and an adjustable foot support for children may be used. However, this device is expensive and necessitates lifting the child into place. It is advisable to develop practices which will exempt those who care for children from having to lift them. *Avoid buying expensive paraphernalia which is not better than simpler equipment.*

Training the bladder is usually begun during the latter months of the first year, and includes the same principles as those suggested for training the bowels. Take the child to the vessel hourly while awake during the day, and several times during the night. Note the hour at which the child first voids urine after retiring, and the hours at which he repeats the urination. Teach the child to lengthen the time between urinations.

Many children of two years go through the night without wetting the bed. Those who do not do so need further discipline in this respect. Take them up about 10 P. M. and on awakening. Give very little fluid with the evening meal.

Prevent Excitement before Bedtime, and Instruct the Child in Habits of Self-control.—Diapers when pinned tightly cause pressure over the bladder. This may suggest the idea of emptying the bladder. It has been noted that children who wear rompers or drawers do not wet their clothes as frequently as those who wear thick diapers. The child does not experience extreme discomfort when wetting the absorbent diaper. He does, however, feel uncomfortable when his romper, or thin drawers are wet.

Discontinue the Use of the Diaper as Soon as a Child Is Able to Hold Himself in a Sitting Position.—He will not like the cold sensation which comes from wetting his clothes. To avoid this discomfort he will refrain from emptying the bladder until he is over the vessel.

Girls apparently acquire the ability of controlling the bladder more readily than boys. The latter may be helped by circumcision. Punishment is seldom if ever effective. Usually it merely serves to humiliate or excite the child. Praise and rewards given when the child has practiced self-control strengthen his desire to establish right habits.¹

The same procedure will not serve equally well for all children since there are various types of bedwetting (clinically termed "enuresis"). *Functional enuresis* is amenable to influences which affect the will of the child.² No organic basis can be found to account for this irregularity. Another type, "enuresis vera," is characterized by defective control of the bladder but not controlled by the will

¹ Myers, Garry Cleveland: "Education of Young Children Through Celebrating Their Success," printed in the City School Leaflet No. 26, published by U. S. Bureau of Education, Dept. of the Interior, Washington, D. C.

² Slingerland, W. H.: "The Care and Cure of Enuresis or Bedwetting in Child-Caring Institutions," published by The Russell Sage Foundation, 130 E. 22nd St., New York.

Orgel, Samuel Z.: "Solving a Vexatious Problem of Childhood," printed in April, 1928 issue of *Hygeia*, the Health Magazine, published by the Amer. Med. Assoc.

of the child. Cases with this form of enuresis need medication of the bladder and special treatments.¹ Consult the doctor regarding this condition.

*Aim to foster independence and social adaptability in the child during the first two years.*² There is no inborn tendency to develop independence. The instincts with which the child was born are inadequate in this complex world. *He must be educated to be independent.* The normal child will stay dependent or grow independent according to the way he is treated. With proper training the normal infant will drink from a cup and eat with a spoon when ten months old. Do not continue to give a nursing bottle after he can get his food without it. Children in nursery schools feed themselves at eighteen months of age. They wash hands and face and use their own handkerchiefs at two years, dress themselves when three years old, and use knife and fork at four years of age.

Most homes are not equipped for children and yet they must live in them. Consequently, adults do what children could do for themselves. Provisions which enable the child to do as much as possible for himself and others are urgently

¹ Bleyer, Adrien: "A Clinical Study of Enuresis," published in Nov., 1928 issue of The American Journal of Diseases of Children.

Amberg, Samuel: "Training the Child's Physical Functions," published Dec., 1925 issue Hygeia.

² Thom, D. A.: "Child Management" published by the Children's Bureau in the U. S. Department of Labor, Washington, D. C.

needed. (Fig. 24.) Bathing and dressing himself, and doing everyday services in and about the house are achievements which are important. While caring for himself and his rela-



Fig. 24.—Encourage the child to help himself. and steps which enable the child to use the sink. (The Washington Child Research Center.)

tives, the little child may learn independence and the pleasures that come with the awareness of being useful.

Many children under four years of age bathe themselves. The mother or nurse must super-

wise what he does, and must prevent accidents, but the normal child may be taught to take his bath without assistance before he is four years old. A box or stool placed next to the tub will facilitate getting into and out of the water. Teach the child to care for the bath tub after using it. He can soon develop the ability to keep the tub immaculate. *Aim to develop increasing independence* in the child. Surround him with objects which he can manipulate.¹ Have all of his possessions within his reach—near the floor; or, provide ladders which he may use in his effort to help himself.

Toys Are a Means of Promoting Development.—The tiny baby will enjoy a teething ring. He needs something to bite on. Rings made of hard rubber or solid celluloid will be more welcome than mother-of-pearl rings. Avoid those made of hollow celluloid. They will chip off as he uses his teeth. Later when he has learned not to put things into his mouth he may play with hollow toys. The most desirable rattle has a stem handle, is unpainted, without sharp edges or acute points, and without a whistle. It makes only a little noise when shaken. A

¹ See: "The Self-Help Bib," pattern issued by Ernestine Chubb, U. S. Bureau of Home Economics, Dept. of Agriculture, Washington, D. C. Pattern described and pictured in December, 1928 issue of *The Child Welfare Magazine*.

See books entitled: "Toys and Occupations for Young Children," "What to Buy for Little Children," by Ada Hart Arlitt, published by The Mother's Training Center Association, Cincinnati, Ohio.

rattle weighing less than 1 ounce, shaped like a little dumb-bell (Fig. 25) is the most popular style with very young infants. They enjoy clutching the rod which joins the two knobs. *Avoid beads.* The baby might swallow a bead, or may choke if the string breaks and he puts a bead into his mouth. Spools and clothespins are enjoyable objects in the nursery. They are light in weight, smooth, and are easily cleansed.

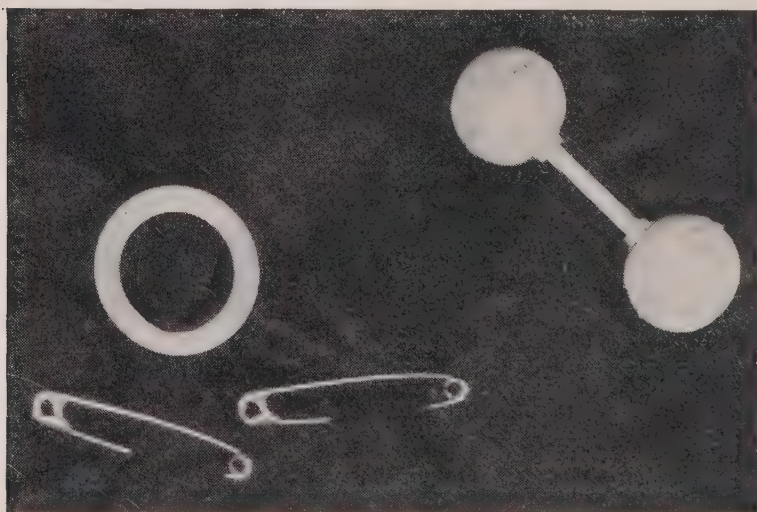


Fig. 25.—Blanket pins, teething ring and rattle.

The baby cannot do much damage while pounding these. Moreover, they are cheap enough to have in quantity. Many trains, dolls, and other articles have been made from spools and clothespins.

Encourage the Use of Natural Objects.—Pebbles, shells, cones, acorns, and other things which may be had without expense will bring joy to most youngsters. “We fill the hands and nurseries of our children with all manner of



Fig. 26.—Children may learn from pets.



Fig. 27.—Toys made from cones.

dolls, drums, and horses, withdrawing their eyes from the plain face and sufficing objects of nature, the sun and moon, the animals, the water, and stones and blocks which should be their toys.”¹ Attention to the bizarre and the artificial is usually manifested by people who have not learned to enjoy the simple pleasures which nature offers to all.

Children May Learn from Pets.—Do not deny them the fun which comes with having pets. However, it is important to safeguard health. *Teach children the dangers which may come from being too intimate with pets.* Teach animals to conduct themselves so as to be as inoffensive as possible. Lockjaw or tetanus germs naturally live in the intestines of horses and cattle. Their droppings are dangerous and should never be carried into the house. Cats frequently have dandruff which causes respiratory troubles in persons who come close to them. The virus which causes hydrophobia may be transmitted with the saliva of a dog before he shows any sign of hydrophobia. All animals carry dirt and disease germs and dogs, in particular, have intestinal parasites. They spread these, or their germs and spores, by licking, nosing, and pawing things. Protect children from having to be too close to pets.

¹ Emerson, Ralph Waldo: in “The Poet,” page 219, in Everyman’s Library, edited by Ernest Rhys, published by Dutton & Company, New York.

Parents Frequently Have an Exaggerated Sense of Responsibility.—(This is especially true with



Fun comes with having pets.



Fig. 28.—Encourage the use of natural objects.

the first baby.) They are too worried about the child's welfare, give him incessant attention,

and always seem to be looking for illness. Often they make small ills worse. By unreasonable fear that he might be hurt, they deprive their child of activities which would develop strength, and courage, and patience. Such parents usually develop boys who are girlish, and girls who are "too good" for other children.

Encourage desirable habits and politeness, and teach him kindness, but avoid making the child too dependent on affection. Affection begins and ends with the persons who bestow and receive it. It is seldom constructive. Moreover, *too much coddling and caressing may derange the child*, and tends to separate him from the realities of life. The world exacts measure for measure. "Earth gets its price for what earth gives us. The beggar is taxed for a corner to lie in, the poor man is charged for a place to die in."

The over-affectionate child usually comes to grief when he finds himself without indulgences. Prepare the child to live in the world in which he is expected to do what he can do for himself. Education is largely an extension of the ability to adjust oneself under varying conditions.

Do Not Use "Baby Talk" When Addressing the Child.—"One baby commonly makes four or five out of the adults who prattle and play to it."¹ Baby talk may foster an inability to pronounce certain letters or combinations of letters, and the subsequent habit of omitting and sub-

¹ Emerson, Ralph Waldo: in the essay entitled: "Self-Reliance."

stituting letters or syllables. The child may use all through his life words which he learned in his crib. Therefore, use correct words, and articulate distinctly. His first sounds are mere repetitions of what he has heard. He echoes without meaning, the words used by those about him. Begin training in speech as soon as the child attempts to speak. Training is simply a matter of substituting right for wrong tendencies.

Use complete sentences when addressing children so as to develop the habit of speaking in a straightforward way. The use of sentences will increase the child's vocabulary and mental development. Speak slowly and distinctly, and foster poise.

Harmony Comes to the Child through His Parents and His Nurse.—The mother's personal attention is most important for his security, but she needs help in order to safeguard her own health and to prevent making the child too dependent upon her. Do not deny the child the educative experiences which come with meeting strangers. He will grow timid and bashful if he is dominated by his mother. Fixations may develop and he may be unhappy without her. *The mother should share her responsibilities with another person, or several persons*, who have had adequate training and experience to act as her substitute. The child will thus grow more sociable than he would under solitary attention. Then, too, she needs freedom and leisure for her own growth. "The art of living lies in a fine mingling of letting go

and holding on.”¹ The mother who never lets go of her tasks will be less successful than she could be if she relinquished her job occasionally. The mother who is never parted from her child becomes too concerned with details that affect his health, whereas the mother who takes her recreation regularly, tends to handle details connected with the child’s routine in a saner way. She does not have the excess of emotions which the confined mother has.

The normal child is happy with any person whom he knows and likes. Help him to like the person who will act in the mother’s place. Develop acquaintance with her before leaving him. In choosing the nurse, base your choice on her ability to carry out the doctor’s orders and to teach the child what he is supposed to know. She must be healthy and fond of children, and have a knowledge of hygiene and sanitation. Consider the following questions: Is she personable? Does she conform to the standards of the best people? What is her philosophy of life? Does she use correct grammar? The child will have his meals with her and will contract her ideas. Protect him from influences which tend to restrict growth and independence. *Be certain that the nurse is healthy*, that is, free of possible communicable

¹ Ellis, Havelock: “The Art of Life,” page 7, published by Houghton Mifflin Co., 1929.

See also: “How Mothers Can Keep Their Health and Looks” by Josephine Hemenway Kenyon, page 22, in *The Parents Magazine*, June, 1930.

disease. Require a physician's certificate from strange nurses. Likewise certain little-understood diseases should be guarded against.

Studies have pointed to the infectiousness of rheumatism and the relation of rheumatism to heart disease.¹ Old nurses are prone to be rheumatic. Remember, the young child is easily infected. Moreover, the older nurse is too positive and resents correction. Then, too, she is usually determined to direct every act and resists opposition. The child needs activity and his spontaneity should not be suppressed by a nurse who is easily fatigued or annoyed by his play and hilarity. The child will find it difficult to mingle with his own generation if he is kept too close to old nurses who encourage behavior which is contrary to the customs generally practiced among normal children.

Sometimes children do not eat, do not sleep, and do not use the nursery chair as they should because the persons who care for them are too concerned about these functions.² In their endeavor to train the child they stress the importance of these acts.¹ The child's behavior reflects the behavior of his elders. If they are charged with emotion he will display emotions which would be absent if a calmer person were caring for him.

¹ Bachman, Harrold A.: "Prevention of Heart Disease in Childhood," printed in June, 1926 issue of Public Health Nurse, published at 370 Seventh Ave., New York.

² Gruenberg, Sidonie Matsner: "Parent Education and Child Health," page 283 in the Public Health Nurse, published at 370 Seventh Ave., New York, June 1930.

EXCERPTS FROM A RADIO TALK

by

DOROTHY HALL,

INFANT WELFARE SOCIETY, CHICAGO, ILL., FEB., 1930¹**Outstanding health habits to be expected***By His First Birthday the Child Should:*

Drink from a cup and eat with a spoon
(bottle discarded).

Sleep alone, without artificial soothing
such as rocking, pacifier, etc.

Have control of his bowels (adult still
taking the responsibility of placing him
on nursery chair regularly).

Be content with little attention.

By His Second Birthday He May Be Expected to:

Feed himself with cup and spoon.

Sleep in a room alone for nap and the night.

Have control over his bladder and bowels,
keeping bed dry at night.

Amuse himself alone with toys.

Pull off his own shoes and stockings, hat
and coat, or any article which does not
require too much manipulation.

By His Third Birthday He May Be Expected to:

Eat his entire meal without help, undress
himself, brush his teeth, wash himself;

¹ February, 1930 issue of The Public Health Nurse, page 77, published by The National Organization for Public Health Nursing, 370, Seventh Avenue, New York.

ask for the toilet. This marks the shift of responsibility from the adult to the child.

Play happily with other children. This presupposes that he has been provided with playmates and a chance to work out his social life on a contemporary scale.

By His Fourth Birthday He May Be Expected to:

Serve himself at table; dress himself and lace his shoes; wait on himself at toilet; comb his hair; put away his toys without being reminded.

By His Fifth and Sixth Birthdays:

The child should show greater skill in these accomplishments and should assume responsibility for the regularity of his health habits. For example, at bed time he may be expected to undress, wash, brush his teeth and go to the toilet without being reminded of each separate step.

The child who meets these simple standards by the time he reaches school age will find himself well equipped to face the social situations which await him in the next few years.

CHAPTER VII

FROM THE SECOND TO THE FIFTH YEAR

THE problems connected with the child from the second to the fifth year include the prevention of disease and the promotion of maximum growth. The resistance is low during these years, and mothers seem to grow less attentive after the child has passed his second birthday. Then, too, this is the epoch of very rapid mental and physical growth, requiring particular education and special care. The two-year old child is often misunderstood. He has not adequate modes of expression. Moreover, his mother may be too concerned with a new baby to study the toddler's problems, or she may not know how to care for him intelligently.

Habits.—*Many Habits Are Established between the Second and Fifth Year of Life.*—Food preferences are in accordance with the eating habits established during this period, and the foundation of personality is laid during this time. Immunize children who have not been immunized against preventable specific diseases and correct all remediable defects. Consult a dentist before the child's third birthday so as to keep his first teeth as long as possible. Provide thorough medical examinations annually

or more frequently.¹ Observe each child carefully every day. *Do not ignore symptoms which may grow serious.* Notice temperature, his breathing, and the condition of the mucous membrane in his mouth, eyes, and nose. Note the character of the appetite and excretions. Observe the posture which the child assumes while sitting, standing, walking, sleeping and playing.

Normal temperature is between 98 F. and 99 F. *Normal breathing* is noiseless, deep and regular, and is through the nose. The healthy child is plump, and his skin is elastic. When the water content is low the skin will stay puckered if it is pinched. The normal, unspoiled child will not need coaxing at mealtime. He will be eager to drink water at regular intervals and will eat happily at mealtime. Report all deviations from normal to the doctor.

The child's reluctance, or inability to sleep, should not keep the mother from putting him to bed regularly each day. He will prevent fatigue and learn how to relax while he is isolated in bed. The child who is less than six years old cannot store up enough energy to carry him through a whole day even though he sleeps from 7 P. M. to 7 A. M. He needs to rest about noon each day.

¹ Boyd, Julian and Pavey, Gertrude: "The Medical Examination of Pre-school Children," printed in June 1929 issue of "The Public Health Nurse," Vol. xxi, No. 6, pages 318-320.

No part of life stands alone. Infancy, childhood, and adolescence are not separated from manhood. The man is not a separate person from the youth he was before he outgrew his teens. *Each epoch of life grows with the characteristics which were developed during afore-going years.* The boy with strong bones, well-developed muscles, and a disciplined nervous system usually grows into manhood with these qualities. The thin, pale, languid, or overactive child usually grows into an adult with like characteristics. "The child is father to the man."

It Is Easy Enough to Impress a Child if He or She Understands What You Are Doing.—Learn how to handle children.¹ Remember all children love attention, and all of them are imitators. They, however, do not size up situations rightly. Lying is usually a means of self-protection. Stealing is merely "taking," and comes from the natural tendency to hoard. *Children need to be socialized.* They must learn to abide by rules which society has set up as important. Aim to prevent behavior which is incompatible with group life. Do not tolerate lying and stealing, or any other unsocial acts which complicate group life.

Undesirable Habits.—The impulse which directs the child's attention to certain portions of his or her body is physiologic. The tendency

¹ West, Mrs. Max: "Child Care; the Pre-School Age," published for U. S. Children's Bureau, free, from Government Printing Office, Washington, D. C.

is alike in normal boys and girls, and it does *not* indicate degenerative tendencies. The new-born infant brings with it sexual impulses. At birth various portions of the child's body are each susceptible of developing into predominant sexual areas if subjected to special excitation. Parental discipline and psychic barriers soon repress the impulses to touch certain parts of the body. Consequently these impulses seldom promote sex-activity.

The First Instinct Which the Child Exhibits Is That for Nourishment.—The practice of sucking is universal among all infants. Absence of the same usually denotes sexual deficiency. The act of nursing develops the lip zone. It plays a prominent part sexually all through life.

The first sexual activity appears in earliest infancy and results from the pleasurable sensation of sucking. "The act of sucking, first employed for appeasing hunger, is soon found to be soothing and pleasurable and the child resorts to it often when he is not hungry. The pleasurable sensation excited by the fact of nursing leads the infant to seek other objects for sucking." The objects frequently chosen are parts of the infant's own body; the tongue, the thumb, a part of the lip itself, or the toe.¹

The tendency to suck should wane after the ninth month of life. *Never encourage the habit of sucking in older infants.* That this is generally

¹ Graves, William P.: *Gynecology*, 3rd Ed., published by W. B. Saunders Co., Philadelphia, 1924, page 132, entitled "Infant Sexuality."

recognized as important is seen in the fact that France has a Federal Law prohibiting the use of pacifiers. Our best doctors advocate feeding the one year old child from a cup, a spoon, or a bowl instead of using a nursing bottle. Moreover, they taboo the "all-day-sucker" and lolly-pops.

Studies indicate a definite relationship between continuous energetic infantile sucking and a later tendency to excessive drinking and smoking. It leads to lip perversions or hysteria connected with eating or kissing. Thumb sucking, which is one of the infantile sexual activities, may lead to abnormal sensibility of the lips and mouth. Associated with the act of sucking there is often a rhythmic pulling of the ear, or pressing or rubbing of certain sensitive parts, usually the thighs. This habit completely occupies the attention of the child and leads to sleep or to a reaction resembling an orgasm. The very young child soon learns to repeat the experience. This practice is often noticed among children one year of age, and younger.

The incidence and duration of this practice (known as masturbation) varies considerably in different individuals. Irritation from diapers or tightly fitting clothing may favor its continuance in infants. Exercises as bicycle riding, swinging while sitting, rocking, and games which include straddling a broom handle, or the like may prolong the practice. Little girls frequently have sudden itching and uncomfortable sensations about the clitoris and vagina.

Temporary relief may come from handling these parts. Children in need of circumcision and those who suffer from intestinal worms, or constipation frequently experience discomfort about the genitals.

Do not punish children who touch their generative organs. An investigation may show that the local parts need cleansing or medical treatment. *Children who are mentally sound are naturally curious.* They may wonder about their own anatomy, as well as about things in their environment. Serious mental and physical disturbances may rise from natural impulses which are distorted or misunderstood. *Fears aroused in early childhood may hamper the individual all through life.*

“Curiosity about sex is not abnormal. The reason children are more curious about sex than about other matters is that sex has always been made mysterious.¹ Human beings are most curious about that of which they have only partial information. Not much thought is given to processes for which we have satisfactory explanations. *Teach children the truth and beauty* about all of their body processes, and you will do much to allay morbid curiosity concerning certain parts. Tell boys as well as girls the nature of menstruation. Teach boys over twelve years of age to look upon occasional seminal losses as a natural occurrence.

¹ Strecker, Edward A.: “Curiosity Normal in Children,” published by The American Medical Association in *Hygeia*, August, 1926.

Persons whose sex organs were stimulated during immaturity are usually subject to neurosis, and they are prone to become irritable and discontented with married life. Moreover,



Fig. 29.—Only one year old, but he is modest.

the shame and loss of self-respect due to consciousness of a practice which is universally condemned often leaves those who masturbate in an unhappy condition. Aim to free the child's life from conscious sex activity. Children can learn inhibition at a very early age. Restraint

which lasts throughout adolescence is the best preparation for parenthood.

Many children learn before their second birthday to keep their genitals covered, and they refrain from touching sensitive parts. Try to make the child conscious of social taboos. Tell him that certain actions (such as putting fingers into the nose, or elsewhere) are forbidden by social usage. He will soon refrain from doing what is contrary to the standards of the group with whom he associates. If he recognizes the existence of a code he will conform.¹



Fig. 30.—Avoid using more clothes than the child needs.

Clothing.—*Hygienic Clothing Is Important.*—Rompers must be roomy. A V-shaped front opening is best. The raglan or kimono type

¹ Dorsey, George A.: "Why We Behave Like Human Beings," published by Harper & Brothers.

sleeves allow more freedom than the set-in-type. Have legs of rompers and pants short enough



Fig. 31.—With appropriate clothes Leland enjoys all seasons.

to come *above the knee*. The drop-seat is recommended for both boy and girl. Large buttons, no more of them than necessary, placed where

the child can reach them, encourage self-dressing. Cotton materials are best for children's rompers.

Crotch seams, plackets, and pocket tops should be double stitched. Sew heavy facings underneath the buttons, so that the buttons



Fig. 32.—Sonny shows what he considers sufficient protection for July and August.

will not break as they go through the mangle. Make the buttonholes firm and reinforce them at the ends.¹

¹ "Children's Rompers," "Sun Suits for Children," "Dresses for the Little Girl," "Ensembles for Sunny Days," and "Play Suits for Winter," published by the Bureau of Home Economics, U. S. Dept. of Agriculture, Washington, D. C.

Also: January 1930 issue of the magazine entitled "Babyhood," published in Marion, Indiana. The article, "Play is Important. Play Clothes are as Important as Toys" by Ethel Perrin.

Have Stockings at Least One-half Inch Longer than the Foot.—The moccasin type of oxford is better than the slipper which may restrict the circulation and check the development of the foot. Do not hamper the natural impulse to walk. The best shoes are merely a protective covering. The normal foot does not need a support. Do not cramp muscles with stiff footwear.

Avoid Using More Clothes than the Child Really Needs.—A diaper and possibly a sleeveless shirt for the infant, a breech clout or “shorts” for the toddler, and merely one garment with shoes and socks, for the older child, will be sufficient during summer.

Irritability Is Often Caused by Superfluous Clothing.—Consider the child’s activity and do not use more clothing than he needs for comfort. Use very short socks in summer and avoid the use of garters. “The child who is decked with prince’s robes and jewels loses all pleasure in his play. His dress hampers him at every step. In fear that it may be frayed or stained, he keeps himself from the world and is afraid to move. Mother, it is no gain, thy bondage of finery, if it keeps one shut off from the healthful earth and robs one of the right of entrance to the great fair of common human life.”¹

¹ Tagore, Rabindranath: page 6, in “Gitanjali,” published by Macmillan Co., 1926.

See: “Between Two Years and Six” by Dr. Richard M. Smith, published for free distribution by The John Hancock Mutual Life Insurance Co., Boston, Mass.

“Two Minute Stories” by Carl S. Patton, published by Willcott, Clark and Colby, 440 S. Dearborn St., Chicago, Ill.

It is, however, important to dress the child sufficiently warm so as to prevent inflammation of the bladder and joints, and other disorders which may follow chilling. Avoid exposure of knees and legs and hands during cold weather. Use long stockings in winter and keep them held in place with supporters. Never permit the child to wear shoes without socks or stockings. To do so may cause infection, and tends to soil the lining of shoes.

Special Problems.—*Teach the Child So That Others Can Work and Play with Him.*—Train for co-operation with his doctor, his nurse, and school teacher. Acquaint him with the thermometer, the stethoscope, and other articles which are usually used in the sick room. Teach him how to assist with medical examinations. His illness will be more bearable if he is friendly toward the doctor and those who are concerned about his welfare. Encourage interest in the school which he will be obliged to attend. Introduce him to the teacher and promote a friendly feeling toward her and the school. “The first day of school” will not be a sad ordeal for the prepared child.

Consider the Child's Aptitudes and Interests in Planning Programs for His Education and Pleasure.—He needs carefree play with children. If he does not have sisters or brothers near his own age, then invite healthy children to play with him. *Be watchful for the signs of sickness in the neighborhood.* Exclude children who are indisposed, and those who come from homes hav-

ing contagious or infectious diseases. Make arrangements in the home to encourage group life and the power of maintaining a gracious equilibrium. A room, a porch, yard, or solarium may be given to children for their exclusive use. Have a space for toys, and hold the children accountable for these.

One of the first play schools grew from a small group which came in response to invitations issued by Mrs. Caroline Sauer for the pleasure of her own three children.¹ About 20 children from four to twelve years of age came to her home regularly in 1896. Toddlers had hobby-horses, and simple toys which they could pile and knock about without breaking. They also had miniature dinner sets, dolls, and doll houses. Marbles, lotto, domino, parchesi, and other games, also dramatics and "stunts" were especially for those between eight and ten years of age. The older children were encouraged to make things with putty and plaster. They wrote letters to their friends and parents, made souvenir cards, and often entertained the younger groups by showing "magic" lantern slides and exhibiting their collections of stamps, coins, seeds, butterflies, etc.

Only healthy children were allowed to stay. Those who came unclean were washed and combed before being admitted to the playroom. Each child received a drink of water, and frequently an apple also. Mrs. Sauer read or

¹ Abstract from "The Cincinnati Times Star," March 13, 1929.

told a story, and encouraged the children to narrate their experiences. Beautiful things were shown, such as flowers, vases, pictures, and also unique things which were in the household museum. She never seemed too weary or too hurried to repeat over and over those stories which children love to hear. The curio box with the horned toad, the petrified crab, the trap-door spider's nest, and the pearl-in-the-oyster-shell thrilled many children. Conch and cockle shells, wasp nests, snake skins, and other specimens developed interest in nature lore. Arithmetic, economics, public speaking, and poise came with popular games called "grocery" and "auction." These were played with papers on which the names and description of articles were printed. Small pieces of cardboard with numerals were used for money. Children took turns at being salesmen and auctioneers.

Mrs. Sauer's school was one of the first to possess a phonograph. The children were permitted to operate it. They also used her telephone before telephones became popular. Familiarity with an extraordinary large map of the United States extended interest to foreign countries. Children were encouraged to speak foreign languages.

Nothing ever separated this mother from her children and their friends. She was always on the job, attentive and entertaining; working early and late. Her enthusiasm never waned.

Every Parent Is Responsible to the Extent of His or Her Ability.—Potentially every father



Fig. 33.—Mrs. Sauer's School Friday night before St Valentine's Day, 1896.

and mother may give a great deal to children and their friends. Even though they have not had much schooling, they are particularly

fitted to meet the exigencies that require maturity and a happy outlook on life. Experts may be needed for the usual management of schools, but no benefit will ever ensue without the interest of the average parent.

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CHAPTER VIII

NURSERY SCHOOLS. DAY NURSERIES KINDERGARTENS

Nursery Schools.—The idea of having schools for very young children is not new. About 1628 John Amos Comenius, pastor in the Moravian Church and teacher in the Brethren's School at Lissa, Poland, wrote: "The School of Infancy," an essay on school education for youth, during the first six years. The following abstracts indicate the aims and educative methods which Comenius advocated.¹ "All who have been born to man's estate have the same end in view: that they be rational beings, competent to serve God and man. The child may learn this during his first six years. It is impossible to give a detailed account or timetable stating how much work should be done each year, month, or day, because some children develop much sooner than others. All, however, need instruction in religion, ethics, speech, art, and habits to promote health. The little child may get some notion of poetry by memorizing poems; of music by learning hymns; of politeness by rendering service to persons whom they meet. Teach cleanliness at meals, in treatment

¹ "The School of Infancy" by John Amos Comenius, edited by Will S. Monroe, published by D. C. Heath & Co., New York.

of clothes and toys. *Parents will not fully perform their duty if they merely teach their offspring to eat, drink, walk, talk, and be adorned with clothing.* Boys and girls, both rich and poor, in all cities, towns, and villages should be sent to school. They demand good education so greatly, that failing it youth must of necessity be lost."

"Occupations have multiplied. *It is rare to find parents who have sufficient knowledge or sufficient leisure to instruct their children.* It is usually impossible for them to proceed as methodically as can a schoolmaster whose sole occupation is to instruct youth. Even though parents have the preparation and leisure to teach, it is nevertheless better that the young be taught together in classes. Better results and more pleasure may be obtained when one pupil serves as an example and stimulus for another."

Compulsory school education in England begins with the child's fifth year. English schools for children between five and six years of age are called Infant Schools.

The Fisher Act, passed in 1918, empowered and encouraged Local School Authorities in England to provide Nursery Schools, schools for children from two to five years of age. Teachers in the Infant Schools look upon the nursery schools as an unquestionable boon. They give no countenance to the view that the average home affords better training than the average school. *Studies reveal inefficient, unhappy, and haphazard methods*

of bringing up children in private homes. Many little children are left to chance. "Visit 10 or 12 typical slum homes and then continue to say, if you dare, that they are proper places to bring up children."¹

The First Modern Nursery School Was Established in London, England, by Rachel and Margaret McMillan.—It grew out of economic necessity, and is now the pattern for all similar schools. It is maintained by the London County Council, and is a training center for teachers of nursery schools. Even though it is located in an impoverished section of London (Deptford, S. E. 8) it is an ideality. It affords an environment in which little children may learn how to meet the demands of the actual world and yet grow in their own way, according to their individual type. "All that is wonderful in human life seems to detach itself and become tangible here."²

An argument for the nursery school lies in the fact that it is arranged for the child, whereas homes are usually arranged for adults. In the ideal school "The child's initiative can be operative to an unusual extent." Here he finds many opportunities for carrying on his own experiments. "That the child's experimental activities do net him something very positive in a surer use of muscles and a more ready sensory discrimination, and ultimately

¹ Stevinson, E.: page 8, "The Open-Air Nursery School," published by E. P. Dutton & Co.

² Stevinson, E.: Ibidem.

in advantageous habits of play and work seem obvious if one has studied growth processes seriously.¹

It Is the Concern of Parents to Supply an Environment in Which the Child May Work and Play to Facilitate Growth.—It is foolish to say that the education of the child belongs wholly to the parents, or unequivocally to the State. The child is educated by many persons, experiences, and things. Parents cannot claim their child for themselves; he belongs to his generation. His growth for evil or good is inevitable. The books he reads, his pals, his theaters, church, and other agencies will make him unlike his parents. They matured with books, pals, theaters and churches of a different order, and they belong to their own generation. A present day dramatist expresses these facts as follows: "There can never be equality between parents and children. We start by taking care of them and finish with them taking care of us. They're down when we are up, and they're up when we are down. There cannot be equality."²

The child's education belongs primarily to the parents because he is in the home during his infancy which is the most impressionable epoch

¹ Johnson, Harriet M.: "Children in the Nursery School," published by The John Day Co., New York, 1928. "Open-Air School Equipment," and "Cots for Kindergarten and Nursery Schools," obtainable free of charge from The Elizabeth McCormick Memorial Fund, 848 North Dearborn Street, Chicago, Ill.

² St. John Ervine: in "The Last Mrs. Fraser," published by Dent, London, England.

of life. Moreover they, not the State, determined his birth. He must, however, know what is taught and experienced in the public schools in order to function as a well developed citizen, to the limit of his capabilities. Do not keep the child from the public school, but make the school as good as possible.

In 1923 Miss Grace Owen, of Manchester (England), gave a series of lectures on Nursery School Education in Columbia University.¹ A small nursery school was established to make her teaching practical. Since then many similar nursery schools have been established throughout the United States.² Some of them have made unique experiments to gain exact knowledge of children.³

"No schools are working more effectively for the promotion of health among children below school age than are the nursery schools conducted by Miss Margaret McMillan and her disciples in England."⁴ Instead of being a house with a garden, as many American nursery schools are,

¹ "Nursery School Education" by Grace Owen, published by E. P. Dutton & Co., New York.

² See Directory of Nursery—Kindergarten—Primary Education, published by the Bureau of Education, U. S. Dept. of the Interior, Washington, D. C.

³ Reports of The Merrill-Palmer School for Motherhood, 71 Ferry Ave., Detroit, Mich. Reports of The Nursery School in the Bureau of Educational Research, 144 W. 13th St., N. Y. Reports of The Washington, D. C. Child Research Center, 1825 Columbia Road, N. W., Washington, D. C.

⁴ Anderson, Lewis: letter dated June 22, 1925.

Miss McMillan's demonstration school is a large garden with a series of picturesque shelters. "Here children may feel the beauty and the changing life of the seasons."¹ Here experience has yielded proof as to how nurture can be given happily. It has indicated beyond all question the kind of environment which should be secured, and proved that dangers of bringing many little children together can be avoided.

The Ideal Schools Are Open-air Schools.—"Not by adopting small houses and leading into them groups of 40 to 50 children can we solve the great problem of caring for little children." Regarding the small, unofficial nursery schools, Miss McMillan said: "Some of them are too large to be a family, but too small to be a children's community." "Evidence shows that very *weak children recover health and begin to thrive when they get away from enclosures and walls*, and are allowed to live, with reasonable safeguards, in the open air."² The sky, cleanliness, wholesome food, sleep and joy soon make of them happy, robust citizens. There is no trace of rickets in any child who has attended the school for one year even though the McMillan School is in a very poor district and most of

¹ McMillan, Margaret: page 156, "The Life of Rachel McMillan," published by J. M. Dent & Sons, London, England.

² McMillan, Margaret: "Nursery Schools and the Pre-school Child," page 3, published by The Nursery School Association, London, England. See also: "The Nursery School" by Margaret McMillan published by E. P. Dutton & Co.

the children and inhabitants of London "slums." Moreover the morbidity of this school is almost nil.

Three hundred children are cared for in oblong shelters, each accommodating about 35 children. They are separated into small groups and each child gets personal supervision. The walls and roofs are of grey or green asbestos or poelite. Some of the walls are movable, and may be taken out in summer. The wood-work is painted vivid blue or red. The southern side is open. Each shelter is heated and flanked by bathrooms, toilets, coat closets and supply cupboards. An arcade or covered way joins the shelters. The gables are wide and contain windows for the entrance of sun and air. Here parents and teachers meet, and adolescent girls are trained in child hygiene. The furniture is inexpensive, but very artistic. Some of it was made by parents of children now attending the school. The teachers wear brightly colored smocks; the attendants in training wear blue uniforms, and the children are dressed in gay wash-clothes, the property of the school. The little girls are adorned with hair-ribbons and appear especially pretty.

Despite the fogs, frosts, winds and rains which prevail in London, the children invariably appear contented. Their clothing is appropriate, and they have learned to disregard the weather. Their graceful aptitude may be attributed to Miss Margaret McMillan whose intelligent, efficient, and maternal personality

is indelibly stamped on the school. She has been the Director since the death of her sister, Miss Rachel McMillan. On November 26, 1929 the writer found her in the rain, calmly directing the gardener, and oblivious to the inclemency of the weather. She said: "Weather is not a fearsome thing to dwell on! Not only of bright summer mornings when the garden is gay, but of winter afternoons when it is soon dark, and of cold wet mornings, we must think without fear." She and her associates, and the children who are so fortunate as to be in her school apparently think of all days without fear.

Day Nurseries.—Day nurseries are establishments in which parents may leave their children for the day. Children are usually brought in the morning as the mother goes out to work, and taken home as she returns. They receive physical care, meals, change of clothing and beds.

A recent study of day nurseries in 24 cities in the United States shows up day nurseries as being far behind nursery schools in health work. "Housing and premises give opportunity for criticism."¹ Moreover, modern principles of child psychology and discipline, scientific attention to dietaries, and general health supervision seems to be lacking. Directors in day nurseries do not seem to recognize the educational possibilities of the pre-school children who are entrusted to their care.

¹ Ireland, W. Bertram: "The Little Child in Our Great Cities," published by The American Child Health Association, 370 Seventh Avenue, New York, N. Y.

The Child in the Day Nursery Must Spend the Most Formative Period of His Life under Influences from Which He Cannot Escape.—Those who have charge of him should be trained to teach. “If hours are to be spent productively the person in charge must be less a keeper of a human storage warehouse and more of a teacher with kindergarten and nursery school training.” Day nursery boards are urged to familiarize themselves with the minimum standards published in 1930 by the National Federation of Day Nurseries, 244 Madison Avenue, New York, N. Y.

Recent studies show that the minimum per capita cost of caring for very young children at present must be higher than the amount which has been considered sufficient heretofore. It is hoped that with recognition of the importance of early years of life the public and educational authorities will be willing to spend more for the education of little children.¹

Kindergartens.—The kindergarten may be defined as a school which educates little children while gratifying and cultivating their normal aptitude for exercise, play, and observation. The time is rapidly approaching when a kindergarten will be part of every school system. The beauty, the informality, the hygiene found in our present day kindergartens makes them a positive means for growth in the fifth year of

¹ Alschuler, Rose H.: “Two Public School Nurseries,” published by American Childhood Publishing Co., Springfield, Mass., March, 1930.

the pre-school child. Most kindergartens are psychologically sound. They prepare the child, not only for the grade work, but they also develop desirable social and personal habits. Here the child learns and applies the Rules of the Health Game, and he learns how to conduct himself so that others can work and play with him.

Investigations Give Evidence That the Child Who Has Attended Kindergarten Has Improved Health upon Being Admitted to School, and He Has a Quickened Sense of Appreciation for Beauty and Order.—Moreover, he has happy relationships with others of his own age, he is not babyish, and possesses a self-reliance which the child who did not attend kindergarten does not have. The training which the kindergarten affords expedites school work. The gigantic increases in the enrollments, the obvious gains made in the first grade, and the happiness of the child in the kindergarten may be regarded as evidences of approval. The present day kindergarten is a pleasant, happy place, supplying ideal facilities for the child's natural needs. Here individual expression is encouraged and maximum growth is fostered.

No effective form of organization has been built up for safeguarding the health of the pre-school child.¹ Nursery schools are quite scarce,

¹ "Study Outline of the Pre-school Child," page 3, prepared for the National Congress of Mothers and Parent-Teachers Assoc. by the American Child Health Assn., 370 Seventeenth Ave, N. Y.

most of our day nurseries lack educational facilities, and we have not enough kindergartens to accommodate all who apply for admittance. However, public educational systems are being extended, and eventually we will have more places in which the child can live as a child and find conditions which promote maximum growth.

REFERENCES

- "Childhood Education," Journal of the International Kindergarten Union, published 1918, Harford Ave., Baltimore, Md.
- "Better Parents Bulletin," published by the Dept. of Parental Educ., Ohio State Dept. of Education, Columbus, Ohio.
- "Child Development Abstracts & Bibliography" issued by the Committee on Child Development Nat'l Research Council, Washington, D. C.

To bring nursery schools and kindergartens within the reach of all, directors of day nurseries should plan to make them a part of public education system. Los Angeles has shown the advantages which accrue from such a merger.¹

A study of the growth of children indicates that greater growth comes with separation from parents and relatives. They tend to do too much for the child and seldom foster independence. He is most happy when doing for himself, and develops confidence in himself when he is left to do things without being aided.

¹ "Los Angeles School Board Maintains Sixteen Day Nurseries" printed in School Life, published by U. S. Bureau of Education, Dept. of the Interior, Washington, D. C. May, 1925.

Relatives usually prevent self-realization because they seldom refrain from helping, even though the child tries to be independent. Parents, unaware of principles of education, do not know how to teach. Moreover, they tend to interpret the child's problems in the light of their own experience. The knowledge which comes with



Fig. 34.—Even though Buddy is scarcely two and one-half years old, he rides his tricycle alone. He is developing his brains and body while he amuses himself.

caring for a few children in an individual home is meagre and frequently antedated. Parents are often "behind the times."

To prevent morbidity and retardation, to promote health, happiness, and independence organize more out-door nursery schools with educators who are impartial, and scientific, and up-to-date. Provide the equipment nec-

essary for physical and mental development, but permit the child to dig things out for himself. "Most of the child's life will be spent in overcoming obstacles, and the sooner he learns to over-come obstacles by his own efforts and not by adult assistance, the better."¹

¹ Arlitt, Ada Hart: page 201, "Psychology of Infancy and Early Childhood," published by McGraw-Hill Book Co., New York, 1928.

"Kindergartens, Past and Present"

"Prefirst Grade Training"

"The Kindergarten Curriculum"

{ free, U. S. Bureau of
Education,
Department of the
Interior,
Washington, D. C.

"Parents and the Pre-school Child" by Wm. E. Blatz and Helen Mc. M. Bott, published by J. M. Dent & Sons, London, England.

"Parents' Questions," published by The Child Study Association of America, 54 West 74th Street, New York.

"Signs of Health in Childhood, A Picture of the Optimal Child," by Hugh Chaplin and Edward A. Strecker, published by The American Child Health Association.

CHAPTER IX

THE HEALTH OF THE SCHOOL CHILD

THE personnel of the public departments concerned with health in schools is very limited in proportion to the amount of work to be done. Parents are therefore urged to have their children examined by the regular family physician at the beginning of each school year. They should, at their own expense, provide for the corrections which may be necessary. If they are unable to do so it becomes the duty of the community to act in their stead.¹

Parents and public officials should check up on conditions which affect the growth of school children. School health surveys conducted by the Ohio State Department of Health include features which warrant continuous consideration, *i. e.*, check-up. A score of 100 is allowed, divided as follows: 10 points for each: school grounds, school building, water supply, toilets, school rooms, and social aspects. Forty points are allowed for physical supervision.²

¹ Section 7721-2 "School Laws of Ohio" compiled under the Direction of John Clifton, Director of Education, published by the Ohio State Department of Education, Columbus, Ohio.

² "School Health Survey," issued by the Ohio State Department of Health, Columbus, Ohio.

The American Public Health Association has designed an appraisal form to evaluate city health work. Arbitrary numeral values have been assigned to specific fields of work. The activities and results of school health programs may be measured with the values placed on items (total 100 points) listed in this generally accepted form. The standards and ratings for School Hygiene are as follows:¹

	Points
<i>Morning Inspection:</i>	
Made each morning by classroom teachers in elementary schools to inspect children for suspicious signs of departure from normal.	4
<i>Nursing Inspection:</i>	
Nurse sees all children in elementary school at least once each year for detection of minor defects.....	4
<i>Sanitation of School Buildings</i>	8
<i>Health Examinations:</i>	
Made by or under the direction of a Physician	25
<i>Children Brought to Professional Attention</i>	15
<i>Field Nursing Service</i>	10
<i>Health Education</i>	20
<i>Recreation</i>	14

School Grounds.—Do not select for the school grounds or building a site which has the ground-water level less than 15 feet below the surface of the soil. When the ground-water level is closer to the surface of the soil the atmosphere

¹ "School Hygiene," pages 63-73 in "Appraisal Form for City Health Work," published by The American Public Health Association, 370 Seventh Ave., New York, N. Y.

above it tends to be damp and cold. "Regions with cold, damp atmospheres are quite apt to conduce to rheumatism, respiratory diseases and neuralgia, and are therefore known as unhealthful regions in which to live."¹

Damp surroundings may be improved by grading and drainage. Have slopes to insure speedy disappearance of rain water. To keep building dry, build a damp-proof course of slate or concrete above the foundations and also double walls with air-spaces. If brick and stone walls tend to be continuously damp and cold, these should be covered with concrete and water-proof paint. *Aim to keep the school site and the walls of the building dry and firm.* Consider the sun and wind as aids in disinfection and ventilation. Have the four corners of the building point in the "cardinal directions" if it is desirable to get as much sunshine as possible. Use trees for shade and to break severe winter winds in localities where the heat and glare of the sun is intense, and strong winds cause discomfort. Breezes and shade are desirable in summer and undesirable in winter. Sunshine is usually more beneficial than detrimental. Avoid planting trees too close to the house when erecting protection against sun and winds.

¹ Smiley, D. R. and Gould, A. G., page 78 "Community Hygiene," published by Macmillan Co., New York, N. Y., 1929.

See also: "Good Housekeeping for Your School Building" by Thomas D. Wood. Published by The Cleanliness Institute, 45 E. 17th Street, New York.

Exert Every Possible Effort to Safeguard Children from Accidents.—Defective architecture, unintelligent administration, and faulty sanitation in schools may cause injuries and infections. Keep the grounds dry and firm so as to prevent mud and dust. Keep surface soil smooth and regular. Eliminate projecting rocks, roots, and tree stumps, as well as hollows and sudden



Fig. 35.—Wood Lane Open-Air School, London, Eng. The girls at work on individual gardens. The children furnish the seed and collect the products. (Courtesy of the Commissioner of Education, London County Council.)

descents. Do not cover the play grounds with sharp stones or cinders.

Avoid the growth of weeds and the accumulation of rubbish in the yard about the school. Place receptacles for trash where children may reach them, and teach the importance of keeping the yard clean. Have adequate janitor service. Arrange to have regular disposal of refuse. Keep garbage pails out of sight. Sink them

into pits made in the ground.¹ Have lids which can be raised and lowered with foot trips. Develop pride in the appearance of the environment. If possible, engage a teacher of horti-



Fig. 36.—Wood Lane Open-Air School, London, Eng. Making a path on the allotment. The loyalty which the children have for their school is noticeable. The headmaster has developed a sense of responsibility and a habit of self control.

culture, or use volunteers, to teach the children how they can improve the landscape

¹ To install *In-the-ground* garbage receiver. Dig a pit wherever the receiver is desired. Insert a copper-steel rust-resisting, heavily painted outer casing with an attached cast iron lid having a foot trip. Pack earth or cement around it. Drop a galvanized iron pail into this receiver. The pail is easily removed by the garbage collector.



Fig. 37.—Wood Lane Open-Air School, London, Eng. Making a "crazy" patch. The stones were carried from a more remote part of the allotment.



Fig. 38.—Wood Lane Open-Air School, London, Eng. Gardening at play time, voluntarily and enthusiastically. The school furnishes the implements and instruction in gardening. (Courtesy of Commissioner of Education, London County Council.)



Fig. 39.—Keep the grounds dry and firm so as to prevent mud and dust.

Equip the yard with rain-proof swings, horizontal bars, benches, chairs, and apparatus for out-door play. Keep pavements and walks clean and repaired.

Size of Grounds.—Recommendations made by public health specialists are noteworthy: "Two acres must be considered the minimum for a school accommodating 100–120 children. The site should be of a size sufficient to admit of a playing field and school garden. (Figs. 35 and 38.) A portion of the playground should be asphalted."¹

"Adequate space for play and recreation is a prime requisite; 100 square feet per child should be the minimum."² Playgrounds are as essential as classrooms and laboratories. It is oftentimes desirable to place the school building opposite a permanent playground or park which may be used by school children.

Present day standards³ in school hygiene suggest:

(a) Existence of accessible playgrounds for the exclusive use of young children.

(b) Four acres of playgrounds for each elementary school.

¹ Newman, Sir George: page 5 "London's Open-air Schools," published by Board of Education, London County Council, County Hall, S. E. 1, London, England, 1930.

² See: "Health and Physical Education Series," Vol. 1, page 45, published by Ohio State Department of Education, 1930.

³ See: "Appraisal Form for City Health Work," page 73, published by American Public Health Association, 1929.



Fig. 40.—Keep the grounds dry and firm so as to prevent mud and dust.



Fig. 41.—Wood Lane Open-Air School, London, Eng. Class huts seen from the dining shed. Notice protecting gables. (Courtesy of the Commissioner of Education, London County Council.)



Fig. 42.—Wood Lane Open-Air School, London, Eng. Excavation for a mapping tray. The headmaster, Captain P. C. Morton is a fellow in the Royal Geographical Society.

(c) Six acres of playgrounds for each high school.

(d) Organized direction of recreation.

Enclose the school grounds with a fence or wall so as to keep dogs, cats, and other animals, also undesirable persons, from the place. Fences can be made to appear very beautiful. Inartistic fences and walls may be hidden with trees, vines, flowers and shrubs.¹

School Buildings.—Ornate, expensive buildings are undesirable for public schools. In localities where the weather permits, the children may be kept out of doors the whole of every day. Erect shelters or huts having roof and floor only, and clothe the children as necessary for comfort. (Fig. 43.) Provide a cloak-room or lockers for each class. Teach children how to care for their garments. Have scraper outside of outer doors to afford the opportunity of scraping mud from shoes and goloshes.

Have All Permanent Buildings Soundproof and Fireproof.—Build fire-escapes, circular slides, and other means of facilitating hurried exits. Provide outside as well as inside stairs, and secure banisters. Avoid having winding stairs. Have risers not over $7\frac{1}{2}$ inches in height, and at least 9 inches wide to eliminate steepness. All doors should open outward. Equip each room with a fire extinguisher and inspect it regularly. Keep the floors smooth but prevent

¹ "Fences for Freedom," by Ruth Peck McLeod, page 17 the Forecast, published 6 East 39th Street, New York, N. Y., June, 1930.

slippery areas. Conduct "fire-drills" frequently; at least once a month. Designate an exit to each group, and teach the children to leave through the place assigned to them.

Furnish vestibules with umbrella racks, with automatic locks, and nonabsorbent fiber mats.

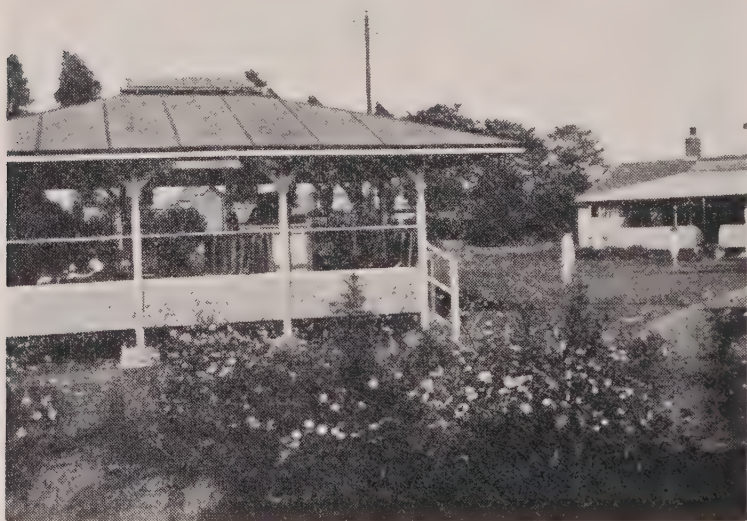


Fig. 43.—Wood Lane Open-Air School, London, Eng. A class hut and corner of the dining shed. Note light, portable, weather-proof piano. (Courtesy of Commissioner of Education, London County Council.)

Avoid having wet umbrellas carried into cloak-rooms and classrooms, or stored in lockers.

Maintain Healthful Atmospheric Conditions.—Use fresh untreated air, which enters through windows. Place radiators below the windows so that cold air will be warmed as it enters. Set up deflectors (boards, or thick glass), placed at a slant on the inner edge of the window sill. The air is thus kept from blowing directly into the room when the sash is raised. Have exhaust

ducts for removing vitiated air near the ceiling on the wall opposite the windows. Aim to make the temperature, humidity, and air movement of the room so as to make the rate of heat loss from the body normal, neither too fast nor too slow. "Have indoor temperature ranging from 66-68 F. and clothe comfortably for that temperature. Then all except marked variations in humidity and air movement may be ignored."¹ Catching cold is frequently due to wearing too much clothing while in warm rooms, and the lack of underclothing in cool rooms. *Adjust the clothing to the temperature of the room.* Keep a thermometer on each teacher's desk. Select the type which is held upright by a standard. Have a red mark at 68 F. and instruct the pupils to maintain the standard temperature: from 66-68 F.

The use of ozone and other chemicals for treating air in schools has little or no scientific justification, and almost no practical value. Many states still have laws requiring that air be supplied to school rooms at the rate of not less than 30 cubic feet per minute per pupil. This can be maintained only by mechanical device. It is really undesirable to have the air rate in excess of 15 cubic feet per minute.²

¹ Smiley, D. F. and Gould, A. G.: "Community Hygiene," page 67, published by Macmillan. Broadhurst, Jean: "Rules for Ventilation," page 231 in "Home and Community Hygiene," published by Lippincott Co., Philadelphia, Pa.

² "Report of the New York State Commission on Ventilation," published by Dutton & Co., N. Y. "Ven-

Moreover, the necessity for mechanical systems is not demonstrated, according to many authorities.

Adequate illumination means having sufficient light to see quickly and accurately. A foot-candle meter may be used to ascertain the quality of light on desks and other places where a certain degree of light is needed. It may be used to instruct pupils in hygiene classes about the principles of illumination. A standard foot-candle meter can be bought for \$25.00 to \$30.00. Maintain desirable illumination: 10-20 foot candles, on desk tops in classrooms, offices, and libraries, 25 or more for sewing on dark materials.

Control the amount of direct sunlight by translucent roller shades, 2 to each window. Fasten them in the middle of the window space so that one can be pulled up and the other downward. Have the shades wide, and adjust them so as to prevent having a crack of light at the edges or across the center of the window. Paint the ceilings white or light cream; and the walls light buff, cream, or gray-green. Avoid glossy paint and varnish. Limit the blackboards to the front of the room; have them dull, and placed so that the pupil will not face the windows while looking at the blackboards. Place desks in a

tilation Standards" by W. J. McConnell, published in March, 1927 issue of American Journal of Public Health, "The Lighting of School Rooms," March, 1930, Health Bulletin for Teachers, published by Metropolitan Life Insurance Company.

diagonal position if necessary, to avoid having the light fall from the rear left position for right-handed children and from the rear right for left-handed children. The glass over framed pictures may cause glare. Change the hanging so as to have the picture flat against the wall; or remove the glass and cover the picture with dull varnish for protection.

Use windows and skylights, the direct means of illumination, whenever possible. *Prevent glare and confusing shadows*. This may be accomplished by having unilateral lighting. The total window surface should be equivalent to $\frac{1}{6}$ to $\frac{1}{4}$ of floor space. (About 1 square foot of window area to each 5 square feet of floor area.) The most effective light comes from the upper portion of the windows. Therefore, have the windows extend upward as near the ceiling as possible. Classroom ceilings should not be under 12 feet high, and the upper edge of the windows not more than 6 inches from the ceiling. Have the sills about 3 feet from the floor. Every child should be able to see some sky when seated at his or her desk.

Water Supply.—Provide paper cups free if there is no fountain. *Aim to have a drinking fountain in each room*. No child should be compelled to go a long distance for a drink of water. Consult the local health officer, or the State Department of Health about the quality of the drinking water. Boil water before using, if doubtful of its purity.

Toilets.—When evaluating a toilet system, question as follows: Can the excretion dropped into the toilet possibly pollute the drinking water? Are toilets flushed? Are U shaped seats used? Is toilet paper available? Can flies and other insects pollute the food, or infect persons by flying to and from toilets? Are facilities for washing hands adequate. Have at least one bowl or sink to 80 children. Have hand soap and individual towels, and a mirror in all lavatories. *A mirror will do much to make children personable.* Consider the illumination and ventilation in the toilet room. Adequate illumination tends to prevent unsanitary conditions. Admit fresh air, but do not have toilet rooms cold.¹

Avoid Conditions Causing Offensive Odors.—Assume that you are dealing with healthy individuals. Disinfectants other than soap and water and sunshine are superfluous. Do not buy deodorants. They are usually used to disguise the odor of urine and fecal matter which has dropped outside the toilet bowl. Flush floors daily. It is best to have floors made of cement and asphalt, with drains arranged to carry water away promptly. Teach children how to use toilets, and supervise them. Take them to all exhibits at local dealers and stress the importance of caring for plumbing and equipment.

¹ "The Janitor and the School Child. Ventilation and Health" by C.-E. A. Winslow, published for free distribution by the Metropolitan Life Insurance Company.

All Sweeping and Cleaning Should Be Done after School Hours.—Use vacuum system and odorless sweeping compounds. Avoid cleansing agents and fumes which have strong odors. Instead of squirting volatile chemicals, supposed to be fly extinguishers, into the air, insist upon having screens and adequate janitor service. Endeavor to find the breeding places of flies and mosquitoes, and eliminate them.

Prevent Crowding the Classrooms.—Have single desks and chairs, and do not permit two or more persons to sit in a space allotted to one. It is best to have an area of 25 square feet for each child, but the size of present day classrooms does not permit this. Seat each pupil at least 5 feet from his neighbor in all directions if it is possible. Such an arrangement would limit the spread of communicable diseases.

Use Adjustable Chairs and Desks.—Have them roomy and constructed to fit the child. Check the adjustment about twice a year, or as the child grows. Avoid desks which hamper the child's movements. Arrange the height of the seat so that the feet may rest on the floor while the lower legs are vertical. If the heels cannot rest on the floor the seat will press under his knees. A seat which is a few inches lower than the approved seat is preferable to a seat which is too high. However, the desk level should not be more than 2 inches above the elbows when the child sits erect with the arms held at the sides. Have the seat concave, not flat. Fit the back support into the lumbar

curve, the "small of the back." Do not have it higher than the bottom of the shoulder blades. Maintain a distance of 10-15 inches from the edge of the desk to the back of the seat.

In considering social aspects, questions as follows: Is the building used as a community center? During what hours is the school closed? How often are gatherings held there? Is there a Parent-Teachers' Association? Are children encouraged to have gardens? Is a library in the school? Are hot lunches provided?

In 1882, the Board of Education in London, England, opened school buildings for play. Children are thus kept from the dangers of the streets. From 5:30 to 7:30 each evening they are happily employed at games, or with their hobbies. Paid supervisors direct activities and promote sociability. The local Board of Education grants free use of school premises, lighted and warmed. A voluntary association, the Evening Play Centers' Committee, supplements the grants from the Board of Education by private donations. Instruction is offered to those who want painting, cobbling, needlework, woodwork and other handicraft.

An application of the London plan to problems of crowded city streets in the United States would bring many advantages to school children¹ and parents. It would permit a reduction in unofficial agencies, and Community Houses which are now separate from the public authorities.

¹ See: "The Spirit of Youth and the City Streets" by Jane Addams, published by Macmillan Co.

To bring the greatest good to the greatest number, parents and children must cooperate with school authorities. *Begin the day prepared to carry on happily.* Children and adults who do not awaken regularly and gladly each morning need to go to bed earlier. Arrange schedules so that each child will arise early enough to wash, dress, eat breakfast, and empty the lower bowel before leaving home. *Many school children do not start the day with an advantage* because their parents are too considerate of their own convenience. On the other hand, many parents are too indulgent. They disregard their children's needs and they surfeit them. "Behavior" which appears in the child who has been called "naughty" may be the result of fatigue, as well as the harmful effects of faulty environment to which he may have been subjected.¹

Physical Condition.—*Parents Should Consider the Child's Physical Condition Each Morning before Sending Him from Home to School.*—The teacher should be vigilant throughout the day to ascertain whether the child is physically fit. Notice the child's gait, locomotion and tempo, and his posture while standing and sitting. Note deformities and complaints. Look at the skin, hair, and nails, and also the mucous membrane in the mouth, nose, and eyes. Do not ignore squinting and dread of light. Call

¹ "The Unstable Child" by Florence Mateer, published by D. Appleton and Co. "A Scientific Basis for Health Instruction in Public Schools" by Laura Cairns, published by the University of California, Berkeley, 1929.

a doctor as soon as these or other symptoms are noticeable. The child having fever or chills, audible respirations, coated tongue, constipation, loss of appetite, tremor, discoloration under eyes, blue lips, aches and pains, or other danger signals, needs medical attention. He should not be sent to school.

The practice established by regulations in the best Educational Departments authorize the following public services:

The So-called "Summer round-up" or Medical Examination of the Children about to Enter School.—The findings are available for inclusion on school records and parents are urged to have defects corrected prior to the opening of school in the Autumn.

*Morning Health Inspection.*¹—Made by the regular classroom teacher each morning as school begins.

Nursing Inspections.—Made to measure growth and also to detect defects in children and environment.

*Medical Examinations.*²—Made by a physician.

¹ "What the Teacher Can Do to Conserve Health and Prevent Disease in School Children" by Dr. Frank G. Boudreau, published by Ohio State Dept. of Health Columbus, O. (free).

"The Health of the Teacher" by James F. Rogers, published for the United States Bureau of Education, Government Printing Office, Washington, D. C.

² "Health Supervision and Medical Inspection of Schools" by Thomas D. Wood and Hugh Grant Rowell, published by W. B. Saunders Co.

Rarely do public authorities have enough money to pay for giving thorough medical examinations to each school child. Consequently public service is, at present, not superior to private medical practice. Most of the medical examinations now made in public schools are "above the collar" examinations and are of questionable value. They should be regarded as secondary, not the primary order of defense. *The clothing must be removed before an accurate examination can be made for physical defects.* Despite this fact, many medical inspections are being made without removing clothes. Parents ought to protest when a doctor pretends to give an examination of the body and its organs while the child is clothed. The object of an honest examination is to get a basis on which to plan the child's life.

Parents and teachers should learn how to promote health, to recognize disease, and how to give first aid. Much harm may come to children who are dominated by adults who do not know the principles which affect health and happiness.

To consider physical development, measure height, while standing and seated; measure also circumference of head, chest, and hips. Note lung capacity and test vision, hearing, heart, and muscle tone.

To Measure Standing Height.—Instruct the child to stand straight with heels, buttock and upper part of the back, and the head, against the wall to which a measuring scale has been

pasted. Tell him to hang the arms at the sides, and hold the head in the position assumed while looking at a point level with the eyes. Bring a square or a rod down to the top of the head. Take the reading from the lower edge of the rod or square.

To Measure Height While Seated.—Seat the child on a horizontal, solid, seat or bench. Have the knees flexed. The back is supposed to make contact with the vertical plane, or the measuring rod, at two points: the sacral region, and again between or at the shoulder blades. Measure the height above the surface of the seat to top of head.

Technic of Vision Test.—Practical tests for near-sightedness (Myopia) may be made in the home or school room. Measure 20 feet on the floor and mark plainly with chalk. Place a Snellen Test card at this distance from the child. Put it on a wall which has adequate light. Never place the card against a window, but hang it so that the best light will fall upon the chart. Cover one of the child's eyes with a paper card held lightly against the forehead so as not to make pressure on the unused eye. Have the child read aloud, beginning at the top. Tell him to read downward as far as possible. One error in reading a letter may be disregarded, but the child should be re-tested for it. Record the conditions under which he reads perfectly. Tests for irregular vision (astigmatism) and far-sightedness (hyperopia) and other examinations

of the eye should be left to an ophthalmologist—a physician who specializes in diseases of the eye.

Technic of Hearing Test.—Many school boards possess an audiometer, an instrument to test the hearing power. It resembles an old fashioned phonograph inasmuch as it has ear tubes which can be used simultaneously by several persons. Thus the hearing of each individual in the group may be tested at one and the same time.

Another method of testing the hearing is to note his ability to hear the human voice. Station the child 20 feet from you in a quiet room. Plug one of his ears. Speak a sentence and ask the child to repeat what he has heard. Do not permit him to look at you while he is being examined, as he may read your lips. Use a whispering voice, and if he hears it at 20 feet write V/20 on his card. If you must use a moderate voice write MV/20. If you speak loudly use LV/20. If the child does not hear at all, write 0/20. Examine the other ear in a like manner.

Some defects may disappear with time, but Nature's methods are slow and uncertain and often clumsy. Moreover, *the child may suffer much and be impaired for life if defects are not corrected early.* The removal of tonsils and "rotten" teeth does not always prevent heart infection, but not removing tonsils and decayed teeth almost always makes the heart condition worse. We have no bacteriological test to show that the tonsil infection is identical with heart

infection but cases show enough to make us realize the relation.¹

Physical education may be defined as the contribution made to the complete education of the individual through psycho-motor or large muscle activities.² The aim is to confirm health, give harmonious development of the body, and teach the best utilization of muscular power in its various applications.

"It is presumed, of course, that the child is normal before engaging in organized physical education, setting-up exercises, and the more active forms of recreation. Oftentimes failure to observe this principle has resulted in positive bodily harm to school children who have but recently recovered from sickness, or have tonsillitis, or rheumatism, or weak hearts, etc. Hence, all physical education should be very closely tied in with medical supervision and no so-called 'corrective exercises' permitted except on the advice and under the general supervision of a physician who is giving special attention to defects and deformities. By all means, physical education for the healthy; medical supervision for the unhealthy or defective."³

¹ "Heart Disease and School Life" by Joseph H. Bainton, published by The American Heart Association, 370 Seventh Avenue, New York, N. Y.

² See page 15 "Health and Physical Education Series," Vol. 1, published 1930, Ohio State Department of Education, Columbus, Ohio.

³ Hayhurst, E. R., Head of the Department of Public Health and Hygiene, College of Medicine, Ohio State University, in a note to the author dated Aug. 30, 1930.

Health Education.—There seems to be need of a subject, generally known as Health Education, to correlate all subjects which affect health. However, since health education deals with life as it is made, it cannot be considered as an exact science. Teachers in health education must not end with the maintenance of health and the establishment of health habits. The child is a psycho-physical creation, and many factors must be considered in developing a program for health education: the health of the teacher and the parents, the teacher-pupil relation, the teacher-parent, and the pupil-parent, as well as the pupil-pupil relation must also be considered. Moreover, activities which seem remote, such as the services of principal, superintendent of schools, and members of boards of education may cripple or develop health education.¹

Children should be enlightened regarding the work of those persons who have been most efficient in promoting health. *Acquaint them with the ideals which led men on, and the discoveries which aspirations have realized.* Include biographies of such individuals as Pasteur, Lister, Koch, Trudeau, Walter Reed, Florence Nightingale, and others, in references for Health Education. Their stories are inspiring. Moreover, many health-heroes were confronted with prob-

¹“Science and the Way to Health,” by Mace J. Andress and Maud Brown, published by Ginn & Co., 1929. “The New Healthy Living” by C.-E. A. Winslow and Mary Kahn, published by Merrill Co., 1929.

lems which the student may recognize as his own.¹

The School Lunch.—Many children are obliged to eat the noon meal at school. Some of them bring their lunches while others buy all or part of the food they eat in school. *The health of the school child tends to wane or improve according to the quality of his noon lunches.* Studies have revealed the following facts: Many children bring insufficient food; others bring sufficient food, but lack the type needed; some children may bring satisfactory lunches but neglect to eat what they bring. Specialists in child care and food selection state that a hot dish at noon time, with adequate supervision of the noonday meal, will reduce the number of malnourished children.²

A score card may help the untrained child to consider choice of foods.³ The total credits being a hundred, could be secured as follows: 20 for drinking milk, 20 for eating vegetables, 20 for fruits, 15 for whole grain products, 15 for

¹ "Microbe Hunters" and "Hunger Fighters" by Paul de Kruif, published by Blue Ribbon Book Co., Cornwall Press, Cornwall, New York and Harcourt Brace Co., New York respectively. "Health Heroes" published for free distribution by The Metropolitan Life Insurance Company, No. 1 Madison Ave., New York.

² "The School Lunch," Bulletin 69 revised, November, 1927, by Extension Specialists of the Department of Home Economics, Ohio State University, Columbus, Ohio.

³ "Food Selection Score Card," for the ordinary person over six years of age, issued by the Extension Service in Washington State College of Agriculture.

HOME ECONOMICS CIRCULAR NO. 34

Cooperation Extension Work in Agriculture and Home Economics
State College of Washington and U. S. Department of Agriculture Cooperating

FOOD SELECTION SCORE CARD

For the ordinary person over six years of age.

Note: This score card emphasizes the need of certain essential foods in a well-selected diet. It is not intended to represent a complete diet. Moderate amounts of fat, sweets, and other desirable foods should be added to the foods listed below. The size of the serving should vary according to the need of the person. For adults and older children, an average serving of vegetables, fruits, or cereal is one-half cup. Servings will be smaller for children under ten years.

Maximum Score	CREDITS	M	T	W	Th	F	S	Su
20	MILK Adults— $\frac{1}{2}$ pt. 10, $\frac{3}{4}$ pt. 15, 1 qt. 20 Children— $\frac{3}{4}$ pt. 10, 1 pt. 15, $\frac{3}{4}$ to 1 qt. 20							
20	VEGETABLES 1 serving 5, 2 servings 10, 3 servings 15 (Potatoes may be included as one of the above servings.) Extra credit if leafy vegetable is included 5							
20	FRUITS 1 serving 10, 2 servings 15 If raw fruit or vegetable or canned tomato is included, extra credit 5							
15	WHOLE GRAIN PRODUCTS 1 serving 10, 2 servings 15							
15	CHEESE, EGGS, MEAT, DRIED BEANS OR PEAS 1 serving of any one of above 10 1 serving of any two of above 15							
10	WATER (TOTAL LIQUID) Adults— $\frac{1}{2}$ quarts 5, 2 quarts 10 Children—1 quart 5, $1\frac{1}{2}$ quarts 10							
100	TOTAL CREDITS							
	DEDUCTIONS							
	USE OF TEA OR COFFEE FOR CHILDREN 10							
	USE OF OVER 2 CUPS OF TEA OR COFFEE OR BOTH FOR ADULTS 10							
	EATING SWEETS BETWEEN MEALS 10							
	TOTAL DEDUCTIONS							
	TOTAL SCORE							

County

Date

Name

Address

Fig. 44.—Score card to evaluate choice of foods.

cheese, eggs, meat, or meat substitute, 10 for taking an adequate amount of water. Deductions could be made as follows: 10 for tea or coffee taken by children, 10 off for adults taking more than two cups of tea or coffee, a loss of 10 for eating sweets between meals. Candy and sweets must be regarded as food. It is best to eat such as a dessert, or immediately after the meal.

The best schools have up-to-date cafeterias, and substantial lunches may be had for 15 to 20 cents. *Make menus attractive and varied as possible.* Encourage the use of protective foods, such as salads, fresh vegetables and dairy products throughout the year. Supply these at low prices. Educate children to select the foods they need; teach dining room etiquette, and promote interest in sanitary standards in kitchens and eating places.¹

The school paper may be a happy medium for imparting information regarding healthful diets. A column or a page with interesting facts and important suggestions will help students to appreciate superior living conditions and may help them over hard places while they are making adjustments.

¹ See: "Sanitary Code for Restaurants and Hotel Kitchens," page 205 in the book entitled: "Sanitary Regulations and Standards," published by Division of Foods and Dairies, State Department of Agriculture, Columbus, Ohio.

"Nutrition Work With Children" by Lydia J. Roberts, published by University of Chicago Press.

"Foundation of Nutrition" by Mary Swartz Rose, published by Macmillan Co.

CHAPTER X

HEALTH PROBLEMS IN THE HIGH SCHOOL

No part of life can be separated from the rest and understood. Physiological and psychological changes are noticeable during adolescence but there is no break in the continuity of the child's development. He will mature more or less rapidly, according to his heredity and environment. Consider the tenets of science and the newer principles of education in arranging a health program for students in high schools. Consider also the characteristics of the adolescent and his personal problems.

The National Education Association listed as the cardinal principles of education: fundamental processes, worthy home membership, vocation, civic education, worthy use of leisure, and ethical character.¹

Recently, Dr. Nicholas Murray Butler, President of Columbia University, referred to five standards which educated persons are supposed to maintain:

1. Precision in the use of the mother tongue as an instrument of expression, the aid to reflection, and the avenues to information.

¹ See: "Cardinal Principles of Secondary Education," published for the Bureau of Education, U. S. Dept. of the Interior, Washington, D. C.

2. Refined and gentle manners, the result of fixed habits of thought and action.

3. Sound standards of appreciation of beauty, of worth, and of character.

4. The power and habit of reflection. (The vast majority of men and women live on the surface of life; very rarely do they go beneath it to analyze it or measure its depths even though the great characteristic as human beings is the capacity to think and reflect.)

5. Efficiency, or the power to do in the sense of discipline and organized will.

At twelve years of age the child should know the essential principles which tend to preserve health.¹ It is hoped that through proper training he will be thrifty. He will not waste time, clothing, food or water, but will save for things worth-while. He will know what he needs and wants, and what necessities cost. He will be considerate of public property, such as library books, school desks, trees, shrubbery, etc. He will be sociable and helpful; regular, orderly, honest and loyal. His imagination is realistic rather than idealistic. He will consider deeds rather than motives. His emotions are positive but he lacks self-control. Both boys and girls require nine and one-half or more hours of sleep daily. Both need from 30-32 calories per day to each pound of body weight. Supply simple foods and give from 1800 to 2000 calories daily.

¹ See: "Rules of the Health Game," Appendix.

Fatigue.—*To Prevent Fatigue Due to Faulty Schedules Is a Community Problem.*—The following work and play schedule has proved satisfactory for high school students: on Mondays, Tuesdays, Wednesdays and Thursdays, from 3-5 P. M., recreation; from 5-7 P. M., clean-up, rest, dinner; from 7-9, study if necessary; if not, then reading, games, or music *at home*. To bed not later than 10 P. M. The main idea is to arrange plans so that all children in the community will be engaged in work or study *at the same time*. This will obviate interruptions. The adolescent cares very much for the opinion of his group; he will do what his pals do, and these facts should not be ignored when planning a work and play schedule for health.

Co-operation between Home and School.—*School Training Is Inadequate to Maintain the Health of the School Child.*—The home folks must co-operate with the teacher to maintain a healthful environment and a unified program of health education. The teacher must know how the child is compelled to live at home before he or she can expect lessons in hygiene to be effective.¹ Parents can help the teacher to understand their children. Visits to the home made by the teacher or school nurse, and conferences will enable the teacher to connect what is taught in the school with what the child experiences in his home. It is not enough to

¹ Blair, Emily Newell: "Must Our Children Start Where We Did?" Published in the May, 1929 issue of Harpers Magazine.

tell a child that he must sleep in a well-ventilated room. The child must not only understand the importance of properly ventilating his room at all times, day and night, and know why fresh air is essential, but he must also know how he can provide healthful ventilation in his own home. He must see how to analyze, and how to transform his environment.

REFERENCES

- "Handbook for Boys," Revised Edition, published by Boy Scouts of America, New York City 1927.
- "The Book of the Camp Fire Girls," published 31 E. 17th Street, New York.
- "Scouting for Girls" published 670 Lexington Avenue, New York.
- "Girl Scout Handbook" published by The Girl Scouts, Inc., 670 Lexington Avenue, N. Y.
- "The Tony Sarg Marionett Book" by F. J. McIsaac and Tony Sarg, published by W. B. Huebsch, New York.

Characteristics of Adolescence.—*The Habit of Going beyond the Fatigue Point Is One of the Adolescent's Worst Vices.*—Fatigue results in lowered resistance to disease, and should not be ignored.¹ The fatigue point varies among individuals, and often in the same individual, according as he is well or ill fed and rested. Frequently, weaker persons are goaded and shamed by stronger friends and ambitious relatives into overdoing. Finally, they suffer from too much wear and tear on the nervous

¹ Laird, Donald A.: "Work and Fatigue" in the August, 1930 issue of *The Scientific America*.

and muscular system of the body. Some of the frequent causes of fatigue are: Deficient sleep, lack of skill; defective mental state; improper nutrition, abuse of stimulants, anemia, impaired circulation, deficient elimination of wastes, effects of diseases or physical defects (including unhealthy teeth, tonsils, heart).

The human body is regulated to carry away its fatigue products quite as fast as they are made. The slight accumulation is made good by complete elimination in the hours of sleep. *An occasional day of rest will do much to keep individuals free from fatigue.*

The blood carries many fatigue products to the excretory organs. If the lungs, the skin or the kidneys are out of order, there is sometimes an accumulation of fatigue products which poisons the whole system. The functional causes of fatigue are under the control of the informed person. The chief problems are connected with rest, food, and methods of living.

“Fatigue or tiredness is defined as lessened activity due to activity, or gradual failure to turn out the same amount of work upon the same effort.”

“Fatigue is usually due to two sets of causes, those within the body, called intrinsic, and able to be discovered by physical examinations, and a study of one’s symptoms and personal hygiene; and conditions of work outside the body, called extrinsic causes of fatigue.”¹

¹ Hayhurst, E. R.: page 162 in “Personal Health” published by McGraw-Hill Book Co., New York.

Consider Tendencies Which May Develop into Pathological Conditions.—The adolescent may be less susceptible to disease than he was in previous years, but he does not usually have the resistance of adults. The beginning of adolescence marks the increase in tuberculosis death rate. It is nearly twice as high among girls as among boys.¹ The desire to take pleasure while being obliged to work is more pronounced in women and girls, and less in men and boys. Men take more sleep, and eat more regularly, and dress warmer, than women do. Studies made recently showed that large groups of high school girls considered 2 pounds of clothing, including shoes, “an excessive amount.” These girls were constantly cold, and they therefore stayed indoors. Many had low blood pressure and sub-normal temperature. Other grave health problems which beset girls in the secondary schools are abnormal menstruation, faulty posture and goiter.

Concerning Menstruation.—The process characterized by a regular monthly discharge of blood from the vagina is known as menstruation. It first appears about the fourteenth year and usually re-appears every twenty-eight days until the woman is about forty-eight years old. Normally, the experience lasts from two to six days. The process is physiologic, and healthy

¹ Deming, Dorothy, and Whitney, Jessamine S.: “Neglected Ages—Adolescence,” printed in Feb., 1929 issue of Public Health Nurse, published at 370 Seventh Ave., New York.

women do not experience pain. "The woman leading a normal, healthful life need not change her habits at the menstrual period. Contrary to the old Jewish law which forbade women to bathe during menstruation, the bath is the thing at this time; it is as beneficial now, as any time, and free from danger.¹ A reasonable amount of out-door exercise is important to equalize the circulation, and to prevent congestion in the pelvis. Consider the nervous system. Avoid activities which may cause strain. *Aim to secure equilibrium and a surplus of vitality.*

Posture.—*Study the Causes of Incorrect Postures.*—Oftimes, children have physical defects which make it impossible for them to maintain correct postures. Some children are naturally "pot-bellied;" certain ligaments are undeveloped, and they cannot stand straight. Parents are usually very concerned about children who are "round-shouldered." This fault frequently disappears when children learn to carry the head erect. Be most concerned about the pelvis and what is done with the hips. Consider the posture of the head. *Praise may help the child to hold up his head.* Urge him to appear tall. Encourage him to lie with back on the floor, to flatten himself against a wall, to carry books or another load on the head, to try to "touch the sky," to stand with chin pulled in, to develop an erect position.

¹ Goodman, Sylvester J.: "Remarks Concerning the Hygiene of Menstruation," March issue of Ohio State Medical Journal, published Columbus, Ohio.

The Relation of Posture to Shoes.—High school girls recently participated in an experiment to ascertain the effect of various types of shoes upon feet and posture. Shoes were examined as to type and size; feet were measured and examined, and footprints were taken. Schematographs, pictures of back and side views, were made of 167 senior girls.¹ x-Ray pictures were made of normal and defective feet, with and without the shoes which were usually worn and also of the feet when both low and high heels were worn. x-Rays were also made to determine the effect of high heels upon the position of the bones of the pelvic region.

The posture defects noted among 42 girls wearing high heels were: 36 had neck bent forward; 32 protruding abdomen; 42 curve in back between shoulder and hip. x-Ray pictures indicate a tilt of 40 in pelvis when extremely high heels were worn, with muscles in upper leg not exercised and muscles in lower leg over exercised.

Posture, in Every Instance, Was Better in Bare Feet than with High Heels.—Eighty-nine per cent of the girls having good feet had good posture. In every instance where a girl had one high hip and one high shoulder, she was found to have either an overdeveloped foot, or an underdeveloped foot on one side.

¹ Merchant, Iza and Cranor, Catherine: "The Effect of Various Types of Shoes upon the Feet and Posture of High School Girls" published by Dept. of Home Economics, Iowa State University, Ames, Iowa.

Goiter.—*Have All Children Who Live in the Goiter Belt Examined Yearly to Ascertain Whether or Not They Have Faulty Thyroid Glands.*¹—The “goiter belt” in the United States begins about Ithaca, New York, and extends about the Great Lakes. It also includes a mountainous section in the West and Northwest. The amount of iodine in the water supplies in these regions is diminished; consequently water, animal food, and plants grown here are deficient in iodine. If possible, take children who live in the goiter belt to the seashore (where iodine abounds) a few weeks each year.

Extensive experiments indicate that it is possible to prevent the development of goiters in adolescents by giving iodine in small doses. This can be done without risk to their health. It is also possible to reduce simple thyroid enlargements through medication with iodine. The danger of producing exophthalmic goiter in a normal thyroid gland by giving small quantities of iodine is declared by competent authorities to be negligible.

Thyroid enlargement appears to be more frequent in girls, but it is not uncommon among adolescent boys. “Twenty-three per cent of the class of 1928 at Cornell University (776 men) had enlarged thyroids.”² More-

¹ Marine, David: “The Importance of Our Knowledge of Thyroid Physiology in Control of Thyroid Diseases,” published in *Archives of Internal Medicine*, Dec., 1923, xxxii, 811-827.

² Smiley, D. F. and Gould, A. G.: page 3 in “*College Textbook of Hygiene*,” published by Macmillan Co.

over, studies show that many individuals may have symptoms which characterize thyrotoxic conditions, namely: exaggerated emotionality, great irritability, restlessness, instability, vasomotor disturbances, quick fatigability, and tremor, without having the obvious thyroid enlargement which usually accompanies these symptoms.¹

The principal cause of goiter is unknown, but *the problem of goiter is a psychological one, as well as a medical one.* Subjects should be taught how to react to symptoms (such as suspicion, irritability, etc.) which have an organic basis, and medical attention should be retained until a cure has been perfected. Some doctors claim that goiter is caused by an organism which exists in the water found in certain sections of the world, whereas others attribute goiter to the lack of iodine. It is generally recognized that organisms develop more easily in water which has a low or no iodine content. Iodine should, therefore, be given, regardless of the cause of goiter.

Activities of High School Girls.—Recently an investigation was made to determine the time spent daily in various activities. The average high school girl spent nine and one-half hours in sleep, one hour in physical activity, one and one-half hour in eating, two and one-half hours in

¹ Nelson, Louise A.: "Variations in Development and Motor Control in Goiterous and Nongoiterous Adolescent Girls," published by Warwick & York, Inc., Baltimore, Md., 1929.

study, one-half hour in extra-classroom activities, one and one-half hours in social pursuits, one and one-half hour "fooling around," one hour in home duties, and one hour in recreational reading and music.¹

Problems Which Affect the Safety of Immature Persons.—The present disregard for appearance, and the apparent endorsement of unconventional behavior, together with the decrease in the size of homes and the prevailing use of automobiles, makes the protection of immature persons difficult.² Moreover, at present, many parents are unconcerned about their children's behavior. They adhere to the old belief that "children must sow their wild oats." Consequently, a big group of young men and women lack parental interest which might prevent undesirable experiences. Then, too, there are parents who are ignorant of what their children are doing. They are interested, but do not know how to influence their children for good. The obnoxious "road houses" outside of the limits of most cities are usually frequented by young people whose parents do not know where they are. Most road houses are conducted in a reprehensible manner and get little or no supervision, even though they are patronized by imma-

¹ Sturtevant, Sarah M. and Strang, Ruth: "Activities of High School Girls," pages 562-71, March, 1929 issue of Teachers College Record, published by Columbia University.

² Post, Emily: "What! No Chaperons?" September 7, 1929 issue of Colliers Magazine.

ture persons. *Do not* expose the child to nefarious situations before he has formed wholesome, constructive conceptions of life. Shield him from filthy talk and obscene plays until he is old enough to have his own convictions.

It is, however, not desirable to keep him wholly unacquainted with vice. He needs to know the effects of vice as well as virtue. Many adolescents patronize cheap, tawdry places because they do not have better places to go to. High school girls and university students have told the writer that they did not have any satisfactory place for entertaining friends of the opposite sex. Consequently, they resort to automobiles, theaters, road houses and other unsupervised shelters. *Arrange places in the home and the school for the pleasure of adolescents.* Help them to meet and entertain friends of both sexes. This will facilitate the exchange of interests and will afford opportunities to consider the best social practices.

Play.—*Discourage the Pursuit of Indoor Activities after Confinement in School.*—Play in the sunshine, walking, gardening, skating, sledding, riding bicycles and horses, flying kites, swimming, and singing will increase muscular tone, oxygenate the blood, and foster happy thoughts. Give music lessons and social dancing during vacations when work and confinement may be balanced with leisure time and out-door play. *Introduce games, but avoid bizarre and sensational activities* in order to guarantee growth along such lines as will in turn promote further growth.

"A boy's got to play games or he'll take it out in life."¹ However, action carried on for amusement must encourage pleasing, kindly manners, poise, and self-control to be worthy. Teach him how to play without endangering others, without growling in defeat, or growing proud when victorious. A program in which freedom of action is not tempered by forbearance toward others will not be effective as a means for promoting the health and moral welfare of children. "It is not enough to merely introduce games. Everything depends upon the way in which they are employed. Play tends to reproduce and affirm crudities as well as excellencies of surrounding life."²

Plan the home for recreation and fun but enable each resident to have privacy when he or she wants it. If the child is to develop resources within himself he must spend some time in solitude. Teach him to enjoy solitude. Give him a desk, encourage him to read regularly and maintain quietude during certain hours every day. Teach him to adhere to facts, and not to look for refuge outside the truth. He will never be lonely if he has learned to enjoy books. *Encourage the use of public libraries*, but lead him to buy a few books, including a good dictionary, so as to have easier access to

¹ Galsworthy, John: page 32 "The Roof," published by Duckworth, No. 3 Henrietta St., London, England, 1929.

² Dewey, John: page 230 "Democracy and Education," published by Macmillan Co.

certain books which need to be reread, marked, and learned to be most helpful.¹

Promote interest in works of art, including the accomplishments of architects and engineers, as well as creations in the field of painting and sculptoring.² *Avoid being too scientific about programs for adolescents.* Conditions under which they live vary from day to day. Aim to meet the needs of each individual and provide a balance of work, recreation and rest.

¹ See: "What Youth Reads" by Arthur E. Roberts, Scout Executive, published by The Rotary Club, Cincinnati, Ohio. "Cross-Roads to Childhood" by Anne Carroll Moore, New York Library, 5th Ave. and 42nd Street, New York. "Stories of Great Americans, by Edward Eggleston, published by American Book Co. Also: "Reading for Fun" by J. L. Green published by R. G. Badger, Boston.

² See "The Enjoyment of Architecture" by Talbot Faulkner Hamlin, published by Scribners; also: "American Architecture" by Fiske Kimball, published by Bobbs-Merrill Co.

CHAPTER XI

HEALTH OF STUDENTS IN THE UNIVERSITY

PROBLEMS connected with the health habits of the university student grow out of the habits which the student possesses prior to entering the university, and the conditions under which he must live while he is in school. If he knows how to analyze, and how to transform his environment so as to promote growth then he will live at his best wherever he may go. He will be safe even though he is separated from the home of his parents.

Manners and Customs.—*The Student's Manners and Customs May Be Regarded as an Index to What He Applies of That Which He Has Learned in Hygiene.*—What he chooses to do indicates whether or not his parents and teachers have socialized him and developed habits which promote health.¹ He will be irregular if he has never learned the value of regularity. Errors in the university student's mode of living show up the ineffectiveness of the superficial, abstract, courses in hygiene which have been taught heretofore.²

¹ See: "Rules of the Health Game" in the Appendix.

² "The teaching of College Hygiene" by John Sundwall. "Can College Hygiene be made Effective in the Life of College Students" by Thomas A. Storey, published respectively in January and February, 1927 issues of Amer. Jour. of Public Health.

Many teachers and parents lack the education and experience necessary for teaching hygiene. Certain teachers who know the medical sciences lack knowledge of the principles of education necessary to teach effectively; they tend to develop the subject far beyond its usefulness. *Instruction in hygiene should be practical* and connected with conditions under which the student must sleep, eat, work and play. Teach each student how he can adjust himself to his environment, and how he may change undesirable habits.

A study of the morbidity of university students indicates that many functional disorders, particularly cases that result in nervous exhaustion, may be attributed to faulty housing, lack of sleep, the use of stimulants and narcotics, inadequate diet, and unsatisfactory philosophies.

Housing.—*No Set of Regulations Can Control the Constantly Changing Conditions under Which the Progressive University Student Lives.*—The student must be led to realize that certain conditions make life more and more complex. He must also realize that *order means liberty*, and that health is essential for beauty, efficiency, and good citizenship.

The student's residence, whether in a university dormitory, a fraternity house, or a private home, should be regarded as a vital part in the educational program of the school. Regard the university student as a responsible human being. He should share in shaping the policies

which exist in his residence. He will promote the enactment of regulations for which he has voted, but his sense of justice usually conflicts with rules which were prescribed without his understanding or consent. "The preservation of keen individual consciences is more important than any law which may be in control."¹ Moreover, regulations which evolve without a voice of those who are affected tend to develop artificial behavior; behavior which has not emerged through educational measures.² Government which cannot be regarded as a definite constructive educational program is undesirable because it tends to make all persons act alike.

The virtue of controlling a residence through a House Committee is that individual differences are considered. Government is then on a democratic basis, and consequently co-operation is spontaneous. *Encourage students to develop judgment and to formulate a philosophy of the home in its relation to life.*³ Many of them marry before, or soon after their graduation. Homes for university students should exemplify preferred theories in hygiene, sanitation, econo-

¹ Patrick, Murphy Malin: "Civil Disobedience," published in July, 1929 issue of *The World Tomorrow*, page 306.

² Selbert, Norma: "Successful Self-Government in Nathan Smith Hall, Yale University, printed in January, 1928 issue of *American Journal of Nursing*, published at 370 Seventh Avenue, New York.

³ Fosdick, Harry Emerson: "The Modern Child Should Guide Himself." January, 1929 issue of *The World's Work*.

mics, and sociology. It is unreasonable to expect thoughtful students to be contented in an environment which is contrary to the principles of living endorsed in the university lecture room.

Sleep and Diet.—*Deans of Colleges Should Maintain Adequate Facilities for Sufficient Sleep to Prevent Disorders Which Come with Fatigue.*—

The ideal program is composed of alternating work and rest periods. Advisors should not endorse schedules which bring all of the student's work at one part of the day, unless intervals between hourly classes can be provided.

Rest includes time for mental and physical relaxation, time for contemplation, and social intercourse. Frequently students confuse dissipation with recreation. Ordinary amusements do not necessarily recreate; they may add to fatigue even though the enjoyment hides the fact. *Weariness always calls for rest* and not for stimulation.

Stimulants often produce excess activity which may terminate in irritability, fatigue and disease. Tea, coffee, coca-cola, alcoholic beverages, and tobacco¹ can usually be endured by healthy adults when they are taken in small quantities, but they do affect the nerves. They tend to produce in the consumer impressions of joy, rest, or activity, and are followed by reactions which usually bring lack of poise and ultimate incapacity. For all indulgence the user pays

¹ M. V. O'Shea: "Tobacco and Mental Efficiency," published by Macmillan Co., New York.

a bill which includes more than cash; the risks are greater than the gain. The addict's muscles may tremble and halt. Frequently the tongue is loosened and conversation becomes illogical and emotional, and sentences are often unfinished.¹

The National Congress of the Parent-Teachers Association has outlined (with the Anti-Cigaret Alliance of America) a resolution concerning the use and sale of cigarettes. The aim is to enforce laws which regulate the sale of cigarettes to minors. A further aim is to reject teachers who are cigaret addicts.²

A Theoretically Correct Diet May Not Work Well in Practice.—Most persons want more food than they need. Residence directors must consider personal preferences. Give food essentials regularly and add items which may have gustatory effects.

*Frequently, Stimulants and Narcotics Are Taken Instead of Food.*³—Studies indicate that many students do not take three meals daily. Error in diet is one of the chief causes of tubercu-

¹ Selbert, Norma: "Health Habits of University Students," May, 1928 issue of Ohio Journal of Science, Vol. xxvll, No. 3, 162-163, published Ohio State University.

² See: "Revised Syllabus in Narcotic Education," published by The International Narcotic Education Assoc., 548 Madison Ave., New York, N. Y.

³ Kolb, Lawrence and DeMox, A. G.: "The Prevalence and Trend of Drug Addiction in the United States and Factors Influencing It." Reprint No. 924, published May 23, 1924, U. S. Health Service, Washington, D. C.

losis.¹ To provide adequate nutrition² each individual needs to take daily:

Milk.—One quart for each child. At least a pint for each adult.

Meat, Egg, Fish, Poultry, Cheese.—At least once a day.

Butter, Lard, Oils, or Other Fats.

Vegetables.—At least two besides potatoes. A green, leafy vegetable four or five times a week.

Potatoes.—At least once a day. Oftener if desired.

Fruits.—Two servings, one of which should be fresh and uncooked. More may be used.

Cereal Products.—Cereal breakfast foods. Breadstuffs. Use a whole cereal product at least once a day.

Sugar and Other Sweets.—In small amounts.

Help each individual to enjoy his meals, but teach him to control himself. Discourage gluttony. Over-eating is an alleged cause of premature senility. Standard in dining rooms affect growth.³ *The function of the university is*

¹ Knouff, Adolph: "Tuberculosis Among Women," published in Journal American Medical Association, Vol. 90, No. 7, Feb. 18, 1928.

² McKay, Hughinia, "Three Meals a Day," published by Home Economics Extension Service, Ohio State University, Columbus, Ohio. "The Relation of Diet to Health and Growth of Children in Institutions" by Mary Swartz Rose and Cora E. Gray, published by Columbia University Press, 1930.

³ Selbert, Norma: "Yale Sets the Standard for Dining Rooms," printed in January, 1927 issue of The Forecast, published at 6 East 39th Street, New York.

to develop the student's consciousness. With a trained leader, and a chance to work on a creative job, most of the students will abstain from unworthy pursuits. Moreover, they will be happy in service.¹ Teach standards and present plans for self-improvement; they will respond. The problem is to help each person to find the niche wherein he or she can serve efficiently and happily. The immature student has need of vocational guidance.² He needs an intelligent counsellor who is concerned about his progress. He should be led into a position in which he may grow according to his capability.

Sex Problems—*Contrary to Current Opinion, Sex Is Not an Obsession among University Students.*—Problems pertaining to sex exist among those students whose parents or guardians failed to inform them with facts pertaining to the generative organs. The conventional silence of parents in regard to sex matters drives the curious child to those persons who will explain principles of anatomy and physiology to him. Improper and odious teaching is available, and many students have been

¹ Kettering, Charles F., "Servants of Humanity," published by Ohio State Univ., 1929. "How any Boy can Keep Fit," published for free distribution by The Ohio State Department of Health, Columbus, Ohio.

² Sturtevant, Sarah M. and Hayes, Harriet, "The Use of the Interview in Advisory Work," June, 1926 issue of Teachers College Record, Columbia Univ., New York. "Counseling the College Student" by Helen B. Bragdon, published by The Harvard University Press, Cambridge, Mass., 1929.

contaminated by sources of undesirable sex knowledge.¹ *Then, too, much conflict arises from the sex instinct when the goal of satisfaction seems far away.* It is not possible to treat the sex impulse by neglect. Parents and teachers must have insight. *The student having conflicting trends may be lead to see the connection between duty and desire.*

Help the student to face reality; to live in the world as it exists today Many parents and teachers live in the past; they are behind the times. The student's program must meet the present-day problems that influence health and happiness.

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¹ See: "The Adolescent, His Conflicts and Escapes" by Sidney Schwab and Borden S. Veeder, published by D. Appleton and Co., New York, 1929. "Instructing Your Child in Facts of Sex," a pamphlet for parents, issued by the Ohio State Department of Health, Columbus, Ohio.

CHAPTER XII

THE CHILD WHO MUST WORK OUTSIDE OF SCHOOL

Let not young souls be smothered out before
They do quaint deeds, and fully flaunt their pride.
It is the world's one crime its babes grow dull,
Its poor are ox-like, limp and leaden-eyed.

Not that they starve, but starve so dreamlessly,
Not that they sow, but that they seldom reap,
Not that they serve, but have no gods to serve,
Not that they die, but they die like sheep.—

VACHEL LINDSAY.

The Child's Natural Function Is to Grow.—

Excessive muscular work utilizes energy which should be used in the normal process of growth. Consequently, the working child does not usually grow as he might under less exacting circumstances. Moreover, cares and employment without educational direction may deprive the child of opportunities for a later successful vocational adjustment, and a satisfactory life as a whole. The ability to think, and the power to earn money, may be increased with schooling.¹ Statistics show that, on the average, high school graduates earn one dollar for every seventy-two cents earned by boys with merely

¹ See: "Psychology and Industrial Efficiency," by Harold E. Burt, published by D. Appleton & Co.

elementary education. "Millions of men have been barely able to keep body and soul together because they were only half educated and unable to compete with better trained men."¹ Work which keeps the child from school, and work which fatigues so that he cannot grasp what is taught, will handicap him. Many stores, factories, mills, mines, offices, farms, the navy, and other places of employment have laborers who have had only eight or less years of schooling. Many old workers who began their jobs as children never acquired the education necessary for working on a higher level. In any average year in New York City 50,000 children at fourteen years of age apply for their working papers.²

Circumstances that lead a child to enter industry may be summarized as: Economic, the social customs of the families, and the personal characteristics of the child. *Economic circumstances* usually include situations where children are obliged to work so as to help support themselves or the family. These are usually cases where the father's earnings are inadequate or no longer available for the family. In many cases the predicament is caused by the illness, death,

¹ Page III, American Journal of Public Health, Sept., 1930, Vol. xx, No. 9 Data from The Metropolitan Life Insurance Company.

² Smiley, Dean Franklin and Gould, Adrian Gordon: page 256 "The Health of the Child Industrial Workers," a section in the book entitled "Community Hygiene" published by Macmillan Co.

desertion, or imprisonment of the father. Only a few cities have systems which provide for the families of imprisoned men. At present children and wives bear ill effects of the confinement and idleness of prisoners.



Fig. 45.—The social worker discovered this “little mother” concerned with a heavy baby brother during hours intended for her own rest and recreation.

The Social Customs of Families May Encourage the Employment of Children.—Certain parents expect their children to go to work as soon as they reach their “teens.” The family’s attitude pre-arranges things for the child. He is brought up to believe that he must enter industry as soon as possible. One of our poets points to facts which argue against this custom.

"Of my city the worst that men will say is this:
You took little children away from the sun and the dew,
And the glimmer that plays in the grass under the great
sky
And the reckless rain; you put them between walls
To work, broken and smothered, for bread and wages,
To eat dust in their throats and die empty-hearted
For a handful of pay on a few Saturday nights."¹

Personal Characteristics of Certain Children May Lead Them into Industry at an Early Age.—School is not satisfying to these children.² Some of them go to work because they prefer to do so. They aim to leave school and all it means, including teachers, confinement, book learning, and other features. Employers frequently exploit these children. They take advantage of their enthusiasm for work. Most of the children who hold jobs are between fifteen and twenty years of age. The majority are engaged in work which lacks constructive value, work that can be done with little skill, and they are underpaid. They are underpaid even though their output is equivalent to the production of adults. Their jobs led to "blind alleys."

There Is Need for Closer Supervision of the Health of Working Children.—Health and education authorities in a few cities compel the child to present a certificate indicating

¹ Sandburg, Carl: "They Will Say," page 9, in edition entitled "Chicago Poems," published by Henry Holt & Co.

² Goddard, Henry: "School Training of Defective Children," "School Training of Gifted Children," published by The World Book Co., Yonkers, New York.

physical fitness before allowing him to engage in wage-earning pursuits. Minors are required to return for physical examinations whenever they change employment. These restrictions, however, do not reach a large group of children who have less obvious physical defects. Moreover, children who work at home get little or no supervision from local health authorities. Many "little mothers" get very tired while lugging younger sisters and brothers. Some of them carry burdens incessantly. Conditions which may result in chronic fatigue, rheumatism, or heart disease, are now ignored by the court and employment bureaus. The child with untreated teeth is running a grave risk, and he is also exposed to the regular hazards which come with his employment. *It is obvious that neither the working child nor his guardian, realizes the danger incident to defective teeth, and loss of strength, and failure to grow.* Consequently, many children who are malnutrition cases are now at work.

It is not economy if a child works under conditions that mean ultimate or immediate illness. He should not risk his health by beginning work with defects which may be made worse by work. They usually can be corrected. Exempt him from strain, excessive fatigue, and exposure to poisonous substances and dust, which lead to physical ruin.

Factors to observe regarding children in industry:

The age and the physical condition of the child;

The nature of the work he is obliged to do;

The length of his working days;
The conditions under which he works;
What he does during his "time off."

Health of Children in Industry.—*Sufficient Knowledge Is at Hand to Indicate a Method of Preventing Nearly Every Form of Industrial Disease.*—Education of the public is the first move for prevention.

The child who must work, like all other children, is a complicated physiological and psychological organism. It is to the advantage of his country, his parents, his employer, and himself, that he perform his task in the most efficient manner possible without risking the maintenance of his working power. The opportunity of leading a normal physiological and psychological life will keep him fit and productive.

The Fundamental Requisites Are: the Suitability of the Worker for His Task and the Existence of Optimum Working Conditions, Including Education.—The apprenticeship system was the principal source of education for workers until the close of the 17th century and was frequently all many workers had during the 18th and 19th centuries. Eventually vocational education was offered in the schools as a substitute for the personal apprenticeship system. Vocational work tends to keep certain boys and girls (who would leave it) in the school. Moreover, it creates interest in concrete work, and gives a vision of industry. This may help the child to rise in his chosen field. However, leaders of the

anti-vocational movement challenge each of these arguments, saying that vocational training in the schools is undemocratic, and tends to lead pupils into occupations while they may be better fitted for abstract courses. Further arguments indicate that the worker lives not during working hours, but when he is off duty. Unbiased philosophers maintain that all of the concerns of life are an indivisible unity. Distinctive fields as work and leisure are not totally separate enterprises. The experiences which come during hours in which the individual is obliged to work cannot be segregated from experiences obtained during hours in which he or she is free from stated occupation.

The Concern of the Homemaker Should Include Consideration of the Young Worker's Condition Prior to Leaving Home for His Job.—Is he physically fit? Is he well-nourished? Have satisfactory plans been made for his lunch? Has a healthful lunch been packed? If he must buy a meal, does he know what foods to select, what foods to reject? Consider his clothes. Give him a good "Send-off." Aim to keep up his morale. Welcome him when he returns. Provide what is necessary to dispel fatigue. Encourage discussions about the job. Promote loyalty,¹ or advise change of employment. Make the home a place of restoration. Afford opportunities to bring to a satisfactory conclusion interests which were begun at work.

¹ Read: "The Philosophy of Loyalty" by Josiah Royce, published by Macmillan Co.

It is important to supply vocational guidance so as to keep the child from getting into work which is illegitimate, unhealthful, or unprofitable. Acquaint him with state laws which regulate conditions for the worker. *In the best establishments the employers are concerned with the worker's condition upon arrival, while at work, and at departure.* Adequate facilities for cleansing the body prior to leaving the shop are growing more popular. Filth accumulated while on the job belongs to the work-shop. The employe should not be obliged to carry dirt from the factory into his home. Consider standards of ventilation, illumination, water supply, toilet facilities, rest periods, and the education of the worker. Encourage the worker to keep fit and prepared for his work.¹

The problems seem to be: finding work for which the individual is mentally and physically suited, teaching the worker how he may safeguard his health while he is on his job, and how he can co-operate with others. Aim to develop individuals who have maximum working ability.² Do not train merely for work, but *prevent the paucity and immorality which comes with lack of responsibility.* Work is reciprocity for life. Teach the child to give as much as possible.

¹ "The Healthy Worker," by Sappington, C. O., published by Nat'l Safety Council, 20 W. Wacker Drive, Chicago, Ill.

² "Physical Standards for Working Children" and "Children of Wage-earning Mothers," distributed by Children's Bureau, Dept. of Labor, Washington, D. C.

The world needs workers who are physically fit and eager to serve. "He who saves himself shall lose himself, but he who gives all shall gain abundantly."

Help the Worker to Know Himself.—He will not be driven by necessity if he is aware of his potentialities, and realizes what it means to be alive on this earth. Lead him to exalt his work, to see in it an opportunity to be a co-worker with God. A poet advises:

"Leave chanting and singing and telling of beads! Why dost thou worship in this lonely, dark, corner of a temple with doors all shut! Open thine eyes! See, God is where the tiller is tilling the ground, and where the pathmaker is breaking stones. He is with them in sun, and in showers, and garments covered with dust. Put off thy holy mantle, and like Him come down to the dusty soil!"

"Come out of thy meditations and leave aside thy incense! What harm is there if thy clothes become tattered and stained? Meet Him and stand by Him *in toil* and in the sweat of thy brow."¹

Work which is important will strengthen the worker's character and tends to enable his associates. *The ability to work is the highest achievement in life.*

¹ Tagore, Rabindranath: page 9, in "Gitjanali," published by Macmillan Company.

CHAPTER XIII

THE YOUTH'S LEISURE TIME. HEALTH IN CAMPS

THE summer camp is a successful means of enjoying leisure time and improving health. It makes separation from family and home easy, and brings pleasures which promote health and growth. Many worth-while activities and vital rules of living are mastered while the camper revels in fun and beauty.¹ Obedience, courage, industry, punctuality, politeness, and other virtues are developed while living with inspiring leaders in a selected environment out-of-doors. Then, too, working and playing with other campers and sharing his experiences with them, enables the individual to know what it means to have social happiness. Many of the rich and radiant forces of life may be met in camps. Acquaintance with birds, insects, trees, flowers, rocks, stones, planets and stars, will help him to appreciate natural phenomena. Thus the world will grow more meaningful to him.

Campers may be classified into three groups: those who go to camp for fun, those who go for health, and those who aim for specific education

¹ See: "Camping & Health," by Gladys I. Young, printed in July, 1929, Public Health Nurse, Vol. xii, No. 4, page 375. "Camping and Education" Bernard S. Mason, McCall Co., 1930.

or "to get honors." The directors of pleasure camps plan entertainments and presuppose that recruits for their camp are healthy.¹ Directors of health camps aim to improve the health of their charges.² Whereas, directors of the camps maintained for educational purposes plan environment, program and personnel for educational projects.³ These camps are connected with Universities and other institutions of learning, or unofficial agencies such as Churches, Scout Organizations, the Campfire Association, Y.W.C.A., and Y.M.C.A., and similar organizations.

In view of the fact that camps appear to be the most satisfactory means of utilizing leisure time, and promoting health and education, it seems advisable to make them more general. At present they are not available to the majority. Most of them are for the subnormal and the rich. Camps conducted for the latter class are run for profit by persons who charge for leadership and facilities which afford adventure and life out of doors. The

¹ "A System of Classification of Summer Camps," May 25, 1929 issue of The Journal of the American Medical Association.

² "Children's Health Camp Manual," published by Committee on Public Health, Charities Aid Ass'n, 105 E. 22nd Street, New York. "Health Camp Management," published by Ohio State Dept. of Public Health, Columbus, Ohio.

³ "The Camp in Higher Education" by Marie M. Ready, published by Bureau of Education, U. S. Department of Interior, Washington, D. C.

costs vary according to location, personnel and equipment.

Public funds are now spent in camps which function through official agencies to improve the health of defective and impoverished children. Many camps are maintained to prevent the spread of tuberculosis.

“Our conception of public health has outgrown the idea of simply preventing contagious diseases. Man presents himself to us as an animal from the biological standpoint, and for this man there must be one form of consideration and treatment. Man also presents himself to us as a social being, and for this man there must be another form of treatment. Biological facts are not governed by sentiment, and are for the most part brutal. Sociological facts are greatly influenced by sentiment and are largely humanitarian. The task before us now is to coordinate the two points of view. Since the time of Christ, the humanitarian side has been in ascent. At present the world is filled with schools, homes and hospitals for the subnormal. Public moneys are now spent largely on incompetents and derelicts rather than for the encouragement of the ambitious and industrious.”¹

Camps a Community Responsibility.—The problem is to hasten the period when hygienic

¹ Ravenel, M. P.: “The Prolongation of Life. To What Goal Is It Tending?”, published by The American Public Health Association, 370 Seventh Ave., New York, N. Y., Feb., 1926.

outdoor life will be within the reach of every citizen. "There seems to be as much good reason for a board of education to acquire property for and to run a good public camp for boys and girls as there is for running a city school building. There is good evidence that health gains are made during a summer in camp that are not attained by a year of schooling. There is also evidence that *happiness depends more upon the spirit of companionship and loyalty which is developed by camp life than upon all the literature, art, and music of the formal school*. Is not the worthy use of leisure an objective in education."¹

Regardless of aims in camps, certain measures must be considered so as to reduce risks and safety hazards. Consult your State Department of Health to ascertain whether or not the camp under consideration is sanitary. Do not go to a camp which is not endorsed by the State Department of Health. It is contrary to the laws in most states to establish a camp for recreation, health, education, or for tourists, laborers, or picnics without having a permit or approval from the local health authorities for the establishment and maintenance of such a camp.

Certain laws regulate the sanitation in camps.² Owners must comply with the specifications

¹ Watson, Goodwin: Professor of Educational Psychology, Columbia University, in an address August 9, 1930.

² See, for example, Ohio Code Regulations, 232-235. See, also, Sanitary Regulations for Camps, Ohio State

enumerated before they can obtain official approval for their camp. Some of the camps on the endorsed list are better than others are. They possess uncalled for improvements, whereas many camps merely have the features which the law obliges owners to maintain.

Investigate Conditions, and Select a Camp Which Is an Ideality if You Can.—Consider the location and the site of the camp. Examine arrangements for sleeping, eating, bathing, and play. Interview the persons who will control procedures in the camp. Also, consider the sanitation and cleanliness of the place, and the cost.

The Ideal Camp.—*Location and Site.*—The ideal camp will be located in a healthful place and far from offensive trades. It will have a large open space for games and for seeing the sky. It will have natural slopes to insure good drainage. Consider only areas which are high, dry, and firm. Avoid regions about marshes or stagnant water so as to evade mosquitoes and wet ground. Damp regions may be drained and graded, but it is usually best to avoid a site having a ground-water level which is less than 15 feet below the surface soil. When the ground-water level is closer to the surface of the soil the atmosphere above it will be damp

Dept. of Health, Chestnut & High Sts., Columbus, Ohio, (free of charge). See "Ten Tests for a Camp" by Elbert K. Fretwell, Teachers College, Columbia University, distributed by courtesy of The Camp Department of The Red Book.

and cold and may injure the camper who is susceptible to rheumatism and respiratory troubles.

Consider the Sun and Wind as Aids in Disinfection and Ventilation.—Plant trees so as to have shade if the sun is intense, but avoid dark low places for outdoor life. Every person needs sunshine for strength and vitality.

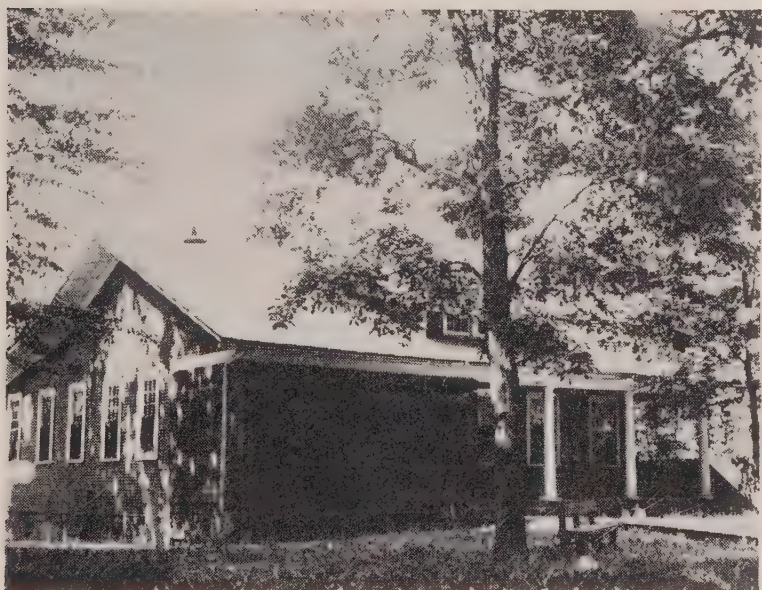


Fig. 46.—A roomy porch is a great asset on rainy days and may be used as a dining room if it is screened.

The Shelter.—Have the four corners of the building placed so as to get as much sunshine as possible. Equip windows with shutters and awnings to keep the house cool during the hottest hours of the day. Secure adequate circulation of air. Use fans if necessary. A roomy porch is a great asset on rainy days and may be used as a dining room if it is screened. Aim to make shelters fire proof. If this is

impossible, be most certain to arrange for easy exit in case of emergencies and equip every room with fire extinguishers. Supply individual lockers for personal clothing.

Sleeping Quarters.—Provide adequate floor space. Allow a distance of at least 2 feet



Fig. 47.—A fence or wall does much for protection against prowlers, and excludes stray dogs and cattle. Moreover, the boundary of the camp property must be visible to make “No Trespassing” signs effective. (Courtesy of The Columbus Baby Camp Committee.)

between beds, or place the beds “foot to head.” A board about 18 inches wide may be attached to the right side of the head end of each bed. Have the board extend 2 feet or more above the campers head when he is lying down. Provide windows with screens. Have a window near each bed so as to enable every camper to see the sky and the scenery from his bunk.

Arrange for privacy. A fence about the encampment, and screens or curtains between beds will do much to exclude intruders and avoid disturbances.

Many Seasoned Campers Enjoy Sleeping in Tents and Out-of-doors.—"In some rainless countries no shelter is necessary, while in others



Fig. 48.—"Good fences make good neighbors," Robert Frost, see his poem: "Mending Walls." (Courtesy of the Columbus Baby Camp Committee.)

it is essential to have protection from pests. Ventilate tents by raising flaps and rolling up sides. In the latter instance, a tent which can be furnished with mosquito netting is comfortable."¹ Folding cots make excellent beds for sleeping under the sky. They will

¹ "Light Camping Equipment in Permanent Camps," issued by Girl Scouts, Inc., 670 Lexington Avenue, New York City.

not be too cumbersome to lug indoors during rains and storms. When planning to sleep on the ground, use waterproof bedrolls which have extra flaps and mosquito netting to be staked out over the head.

For protection against heavy winds and rains it is best to use a tent which has a wooden platform, an overlapping fly, and tie posts which are set in the ground. Use 2×4 undressed spruce for base ground posts.¹ *Aim to keep standards of living endorsed by sanitarians.* Take all precautions to prevent disease.

State Departments of Health will give specific recommendations regarding the requirements to be used in connection with the water supply, plumbing, sewers, privies, disposal of waste, refuse and garbage in camps. Campers should be held responsible for the cleanliness of their camp. The staff must be qualified to teach the best procedures considering conservation of human energy, conservation of time and materials, as well as desirable attitudes toward the tasks which the campers are supposed to perform regularly.²

Minimize Health Hazards.—Oblige recruits to have a thorough physical examination and orders from a doctor regarding personal health

¹ "Tents for All Purposes," published (free) by Girl Scouts, Inc., 670 Lexington Avenue, New York.

² "Sanitary Suggestions for Campers, Tourists and Travelers," published by the Ohio State Automobile Association, Columbus, Ohio.

problems. They should also have inoculations against small pox and typhoid fever prior to entering camp. Make health inspections daily. Give special attention to the skin, the feet, eyes, and mouth. Cleanliness of the body, clothing, bedding, and personal property; also cleanliness of the tent and grounds. Inspections may present opportunities to teach standards in sanitation and hygiene and ethics. Provide adequate bathing facilities, and have an unlimited amount of hot and cold water for washing hands and faces, and for drinking.

Prevent Objectionable Features Connected with Refuse Collection and Disposal.—Consider the method in which debris is finally disposed of, and aim to facilitate collections. Keep the garbage separated from combustible refuse, glass, metals, and ashes.

Garbage.—Always drain garbage before putting it into the receptacle from which it is collected. Wrap it in paper before dropping it into the garbage can *if the final disposal is the incineration process*. Drain the garbage in the kitchen. An enamel-ware vessel having perforated sides and bottom may be stood in the kitchen sink or hung over one corner of the sink. A small garbage holder which is supported on a swinging arm beneath the kitchen sink may also be used. This has an inner receptacle with a perforated bottom which does not reach to the floor of the outer water-tight container. The moisture which trickles through the perforated bottom of the inner receptacle may be tossed

into the sink from the outer container. *Drain all garbage* whether it is wrapped or not wrapped, prior to being dropped into the outside garbage can. Offensive odors will be reduced if the holder is clean and the garbage is kept dry. Exclude rain and snow.

Use water-tight and fly-proof garbage holders out-of-doors. Keep these covered and placed at the properly designated point of collection. Use in-the-ground garbage can holders (described in Chapter IX) to conceal garbage out-of-doors. This does away with unsightly receptacles, and prevents decomposition which occurs when garbage gets warm. Moreover, it is frost proof in the winter season. It also keeps dogs, cats, rats, flies, and other pests from the garbage.

Ashes.—Use metal cans, of a size appropriate for the collection service, as the first receptacle. Ashes may be used in outside latrines, for scouring, and on paths. Metal, glass, broken crockery and cans may be handled together. Put tin cans into the fire before discarding them so as to burn off all foods which would lure pests. Flatten cans with a hammer so as to prevent rain and rodents from entering them. Mosquitoes may thus be kept from breeding in old tin cans. Then too, many campers bury used tin cans. It will be easier to handle and simpler to bury flattened tin cans.

Keep the Kitchen and Dining Room Well Lighted, Clean, and Properly Ventilated.—The walls should be plastered, or ceiled and painted. Screen doors and windows from May 1st to

October 15th with screening not coarser than 12 mesh wire gauge.¹ *Keep the kitchen free from things which are not used in the preparation of food.* Exclude cats, dogs, and all other animals. Provide suitable means of cleansing, rinsing, and sterilizing dishes and utensils. Provide adequate facilities for storing foods. Keep refrigerators clean and below 50 F. Erect a hood (surrounding the flue) above the stove, and place a suction fan in it to dispel odors.

Avoid Having Things Which Hold the Dust in the Dining Room.—Painted tables, cleansed thoroughly after each meal, are more hygienic than are tables covered with oil cloth or other covers which cannot be kept immaculate. Chairs and benches with secure backs are more comfortable than are stools and benches which lack supports. Flowers, music, and pleasant conversation tend to promote happiness in the dining room.² Instruct food handlers in the

¹ Sanitary Regulations for Kitchens & Dining Rooms, published by Division of Foods and Dairies, the Ohio State Dept. of Agriculture, Columbus, Ohio. Also: "The House Fly, Carrier of Disease," published by American Medical Ass'n, 535 N. Dearborn St., Chicago, Ill.

See American Journal of Public Health, May, 1930, pages 509-517, published by American Public Health Ass'n, 370 Seventh Avenue, New York, for Report of Committee on Refuse Collection and Disposal.

² See: "The Mess Officer's Manual," prepared by Division of Food & Nutrition of Medical Dept. in the United States Army, published by Lea & Febiger Co., Philadelphia. Also: "Diet and Nutrition in Children's Summer Camps," published by the New York State Department of Education, Albany, N. Y.

technique of food-handling and personal hygiene. Provide competent supervision of procedures which affect the quality of the food.

Satisfactory menus will prevent the desire to eat between meals, and thus avoid many disorders. *An abundant supply of superior milk is vital.* Do not depend upon the assurance of the owner of the dairy or upon facts which may be seen during occasional visits when evaluating the dairy from which the milk supply is obtained. Consult the local health officer or the State Department of Health before contracting for milk. Pasteurization (heating to 143-145 F. for thirty minutes, then cooling quickly) and boiling are two means of rendering milk safe.¹

Foods.—Provide body requirements, and also innovations which give pleasure.² As a rule, it is best to use simple menus which are adapted to camp life, but much fun comes with the experience of preparing food in an unusual way.

¹ Consider the standards adopted by the American Public Health Association: No Milk supply is considered as pasteurized unless it comes from a plant which is "equipped with recording thermometer and flush valves." No plant is recognized as a pasteurizing plant unless so equipped. See page 75, "Milk Supply Control" in Appraisal Form for City Health Work, published by the American Public Health Association, 370 Seventh Ave., New York, N. Y., 1929.

² "Diet Guide for Vacation Homes and Camps," published by The Nutrition Council, Children's Welfare Federation, 244 Madison Ave., New York, N. Y. See "Kettles and Campfires." Also: "Tramping and Trailing," by Girl Scouts Inc., 670 Lexington Ave., New York, N. Y.

Most campers will enjoy cooking on tin cans, making bread twists, serving a dinner from an immu, a "weenie roast" and a barbecue. See Appendix for directions.

Consider the Character of Activities, and Facilities for Recreation When Evaluating Camps. Books, victrolas, radios and other things are valuable for indoor entertainments, but these should not keep the camper from the enjoyment of natural entertainments out of doors. "Men are taught to be wise, not by books, but by the heavens, the earth, oaks and beeches. That is, they must learn to know and examine the things

Standard Size of Fields for Outdoor Activities¹

	Feet
Rugby Football.....	225 X 330
American Football.....	160 X 360
Hockey.....	150 X 225
Soccer.....	180 X 300
Golf Driving Net.....	12 X 25
Volley Ball.....	25 X 30
Horseshoe Court.....	12 X 52 (stakes 40 feet apart)
Baseball.....	90 feet between bases field limits 235 feet
Tennis.....	36 X 120
Handball.....	20 X 36
Basketball.....	50 X 70
Paddle Tennis.....	18 X 30
Outdoor Bowling Green.....	40 yards square, each individual rink 19 to 20 feet wide.

¹ Copied from the booklet entitled: "Outdoor Recreation for Employees"; published by The Metropolitan Life Insurance Co., No. 1 Madison Ave., New York, N. Y.

themselves, and not the testimony and observations of others about things.”¹

“Lead your child to Nature. Tutor him on the hilltop and in the valleys. There he will listen better and the sense of freedom will give him more strength to overcome difficulties. Should a bird sing, or an insect hum on the leaf, at once stop talking. Birds and insects are teaching him—you may be silent.”²

Encourage the Pursuit of Activities Which Grow Out of the Camper's Environment and His Needs.—The preparation of food under primitive conditions leads to the art of building fires and fire-places, caches, shelters, the use of the axe, hatchet, knife and spade. The need for certain articles as coat-hangers, book-ends, brooms, cranes, racks, toasters, lanterns, and other things will lead to the creation of these. Local materials and products suggest specific designs in basketry, pottery, and weaving, and also to making spatter prints, smoke prints and plaster casts. Discourage the tendency to make useless and unlovely things. Avoid the routine which is usually found in schools where a certain period, no more, no less, is given for specific activities. Develop co-operation with the group, but be sure that each person brings his own project to a satisfactory conclusion. Aim to develop pluck and intrepidity.

¹ Comenius, John Amos: “The Great Didactic,” published by D. C. Heath & Co.

² Pestalozzi in his Diary dated February 15, 1774; translation in “Life and Work of Pestalozzi,” by J. A. Green, published by W. B. Clive, London, England, 1913.

Avoid merry-go-rounds and other equipment which may cause dizziness. Discourage the use of teeters and swinging in the sitting position.



Fig. 49.—Illustration showing the most desirable type of swing. The child is supposed to propel it while he stands on the log. The trapeze tends to strengthen the back. The curved log tends to develop the arches. (Courtesy of The Washington, D. C. Child Research Center.)

The swing which is propelled while the child stands tends to develop the arches and the thighs. The

trapeze¹ and horizontal bars are endorsed by orthopedic specialists (Fig. 49).

Avoid Games Which Become a Serious Business. Making and breaking records, and holding championships often impairs the health of the player. Ideally, the self finds its fulfillment not in the cultivation of isolated pursuits and personal appreciations, but in the identification of the self with ends that are appreciated in their social significance.²

Swimming is an enjoyable sport for certain individuals, *but every person should not be ordered to swim.* Human beings are not aquatic animals. Many persons suffer with sinus troubles and infections of the nose, ear, and throat because they will not refrain from swimming and diving. Moreover, infections may be readily transmitted from one bather to another through the water in swimming pools. Provide the safest water possible for pools. Instruct patrons to use toilets, and to cleanse themselves thoroughly before and after bathing. Teach the proper

¹ "The Doorway Gym," published by The Standard Pressed Steel Company, Jenkintown, Pa.

See: "The Book of Woodcraft" by Ernest Thompson Seton, published by Doubleday, Page & Co., Garden City, New York.

See: "Gifts Girls Like to Make" by Martha Foster, for the 4-H-Clubs, Ohio State University Extension Service, Columbus, Ohio.

² Bode, Boyd H.: "Fundamentals of Education," page 138, published 1921 by Macmillan Co., New York, N. Y. Also: "Competitive Athletics for Adolescent Girls" by Ethel Perrin, printed in The Public Health Nurse, published 370 Seventh Ave., New York, N. Y., May, 1929.

way of blowing the nose.¹ Forbid spitting and urination in the pool. Exclude all bathers who are careless and also those who have any infection whatsoever.

With the introduction of standards by health specialists and present day leaders in education, camps will become more and more popular. The introduction of camps into public school systems has already begun, and is endorsed by eminent educators. "Soon a city without its camps may be looked upon as negligent as a city without its public school system."²

Several universities now own camps on lakes, in mountains, and other beautiful locations. They are managed as units of the universities which maintain them and have passed the experimental stage. Associations and agencies not utilizing camps are negligent of the scientific studies which indicate that outdoor life is essential for complete living. Moreover, con-

¹ *Prevent blowing the nose forcibly.* Consider the anatomy of the Eustachian tubes and the liability of contamination of the tympanic cavity. If the child has nasal obstruction or a large adenoid mass, forceful blowing may seem necessary to cleanse the nose. This should be avoided as the obstruction only increases the danger of ear involvement. Blow gently through both nostrils at the same time, or blow through one nostril and then through the other, but never blow forcibly." Dr. Hugh G. Beatty, Chairman, Department of Otolaryngology, Ohio State University, in a letter dated May 28, 1930.

² Watson, Goodwin, Professor of Educational Psychology, Columbia University, in an address given to Students in the Summer Session, August 9, 1930.

ditions which cause avoidable suffering and retardation may be prevented with adequate facilities for camping regularly several months of every year.

“The fact that morbidity is greater in the Spring than it is in the Autumn points to the ill effects of the school on the child’s health.”¹ It seems possible to eradicate the “three enemies of health and growth: infections, a closed environment, and an ordered, systematized regime of life,” with well regulated camps.

¹ Emerson, Haven: in an address to the American Child Health Association, Sayville, Long Island, N. Y. June 17, 1930. See report of Sixth Health Education Conference of the American Child Health Ass’n.

APPENDIX

RULES OF THE HEALTH GAME

“RULES of the Health Game,” advocated by the American Child Health Ass’n, 370 Seventh Ave., New York, and The Bureau of Education, Dept. of the Interior, Washington, D. C.; adopted by the Joint Committee of the National Education Ass’n, and the American Medical Ass’n (see publications issued by Columbia University). The “Health Behavior Scales” recently published by Dr. Thomas Wood and Dr. Marion Lerrigo (published by the Public School Publishing Co., Bloomington, Ind.) include Standards which these rules suggest.

1. Take a bath more than once a week.
2. Brush teeth thoroughly at least once each day.
3. Sleep at least eight hours out of every twenty-four.
4. Sleep with one or more windows open.
5. Drink at least four, or more, glasses of water each day; drink one glass before breakfast.
6. Drink at least a pint of milk each day.
7. If a child, do not drink tea, coffee, or cocoa. If an adult, do not drink these beverages oftener than once a day; never drink these when tired.

8. Eat a fruit or a vegetable, or both each meal.

9. Play out of doors a part of every day.

10. Empty the lower bowel every morning.

11. Heed Nature's call to empty the bladder and bowels.

12. Work daily at some task which is important.

UNIQUE WAYS OF PREPARING FOOD OUT-OF-DOORS

Cooking on a Tin Can; Immuing a Dinner; The Barbecue; Bread Twists.¹

Cooking on a Tin Can.—Cut an opening, about 3 inches square on one side near the top of an empty can. Cut another opening about $1\frac{1}{2}$ inches square near the bottom on the opposite side. Then set the can on the lid, thus bringing the larger opening to the bottom. Use dry weeds as tinder and dead twigs for fuel. Tend the fire through the larger opening. The smaller opening, the "Flue" should be opposite. Fry foods on the "stove." It will heat rapidly. Bacon, eggs, pancakes, and fritters cook quickly even though the stove is used in the rain.

Immuing a Dinner.—*Prepare the immu as follows:* Dig a pit about 4 feet deep, 3 feet long, and 2 feet wide. Line it with stones and build a fire on them. Add fuel, and keep the fire burning for several hours until the stones are

¹ See: "Tin Can Cookery," page 19, in the July, 1930 issue of The American Girl, published by Girl Scouts, 670 Lexington Ave., New York, N. Y.

The word "immu" is derived from "immure," meaning to enclose within walls; shut-up; entomb.

See: "Immuing A Chicken," "Book of the Camp Fire Girls," page 168, published at 31 E. 17th St., New York, N. Y., 1928.

very hot. Lift out all burning fuel, and cover the stones with clean, edible leaves. Place the food on the leaves, and cover all with more leaves, and wet canvas. Have the canvas one yard long, and one yard wider than the pit is and keep the corners in place with stones. Shovel hot earth from the edges of the pit onto the canvas.

Clean the vegetables, potatoes, corn on the cob, whole carrots, onions, and any others, as you would for baking. Prepare the meat for roasting. Place the vegetables about the meat, laying it where the stones are hottest. The dinner will be ready to serve in one to three hours, depending upon the quantity of the food enclosed and the temperature of the stones which line the pit.

To Serve.—Shovel the earth from the canvas. Remove the stones holding it in place. Raise the material carefully grasping it by each of the four corners. Remove the leaves, and finally lift the food.

Popular Immu Menus:

(a) Chicken, corn on the cob, carrots, serve with biscuits and honey and celery.

(b) A ham, sweet potatoes, onions, and apples.

The Barbecue.—Prepare the pit, line with stones and heat with a blazing fire, as for the dinner cooked in an immu. Remove only part of the fuel when the stones are very hot, retain the embers. Place the whole chicken, or other animal to be roasted, on a wire rack which is somewhat longer and wider than the

pit is. Turn the fowl or animal and baste it with soup and grease. The carcass may be suspended over the embers, hanging from a crane instead of being on a wire rack. Turn it frequently, keep it hot, and moistened with liquid and melted butter, or other fat.

Bread Twists.—Build a “criss-cross fire” out of doors to produce a bed of hot coals quickly. While the fuel is aflame, mix ingredients and prepare a stick for baking the dough.¹

Mix 1 cup of flour, 1 tsp. baking powder, 2 tbsp. of fat, and a pinch of salt. Then add a small amount of water, enough to make a stiff dough. Stretch the dough into strips about 3 or 4 inches wide and 1 foot long. Wind each piece spirally around a peeled stick, and toast over glowing coals. It is best to use peeled sticks each about 2 feet long and $\frac{3}{4}$ inch in diameter. Have the sticks hot, and dusted with flour before wrapping the dough, or, wind a piece of bacon about the stick, sear it, and then wrap the dough over the bacon. The bacon and the dough may be anchored with a straw or a tooth-pick. Grated cheese may be added to the dough prior to toasting it. Bake the twist slowly until it is golden and brown. Jam will be a delicious addition.

¹ See: Girl Scout Handbook, page 205, published at 670 Lexington Ave., New York, N. Y.



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